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# CITRUS CANKER

## HEARING

BEFORE THE

## COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

SECOND SESSION

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OCTOBER 1, 1984, ORLANDO, FL

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# CITRUS CANKER

MONDAY, OCTOBER 1, 1984

U.S. SENATE,
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
*Orlando, FL.*

The committee met, pursuant to notice, at 9 a.m., in the Marriott Airport Hotel, Hon. Paula Hawkins presiding.

## STATEMENT OF HON. PAULA HAWKINS, A U.S. SENATOR FROM FLORIDA

Senator HAWKINS. Good morning. I am Senator Paula Hawkins. As the only member of Florida's congressional delegation to be a member of the Agriculture Committee, I'm very honored to be sitting on the Agriculture Committee and to represent Florida agriculture.

I don't know of anytime in history that we have had so many problems in agriculture occurring in such a short period, I'm, pleased to be with you this morning to try to get some answers to potentially the worst problem we've had in many years and we want to clear up some of the confusion nationally, as well as statewide on this problem of citrus canker.

Canker is the most dreaded disease to our citrus industry and the present outbreak comes at a time when the industry is recovering from freezes in 3 of the last 4 years. Fortunately, however, the disease is still confined to nurseries which grow stock for our groves, and to date, only six nurseries in Florida have had confirmed canker infestations.

No canker has been found in any of our citrus groves. That point should be stressed by the national media. I find it upsetting that some national publications are saying that Florida citrus is wiped out, that there is no fruit, that Florida never will be a citrus-producing State again. That is absolutely not the case. Today's hearing is to determine that everything humanly possible is being done to prevent the spread of this disease and to completely eradicate it from the State of Florida. We may never know where this strain originated; however, we do know it is here and we need to find everything out about it that we can.

Today, we have representatives from the U.S. Department of Agriculture, and at this time, I want to compliment these men who are here this morning, as well as Secretary Block, with whom I've met on several occasions in the last few weeks. They have acted very quickly to respond to the State's needs. In fact, I have been kidding with one of the witnesses here that he has been in Florida long enough to become a resident of our State. We also have wit-

nesses from the Florida State Department of Agriculture and Consumer Services. We'd like to hear more about their actions to eradicate this dreaded disease. We would like to know of the Department's efforts and its relationship with the U.S. Department of Agriculture. We would like to hear exactly how this cooperative effort is working. We know that thousands of Floridians' livelihoods depend upon this citrus industry. This is our No. 2 industry in the State of Florida and we will hear from several witness who have been directly affected by this outbreak and, hopefully, we will all benefit from the testimony provided today.

This record will be kept open for 10 days for anyone wishing to submit material for the record.

As you know, the Senate has appropriated $1 million for research at the University of Florida to investigate canker which I feel is a wise investment for the country.

Our first witness this morning will be Bill McMillan, who is the Assistant Secretary of Marketing and Inspection Services, U.S. Department of Agriculture. Accompanying him is William Helms of the Animal and Plant Inspection Service, Dr. Ed Knipling, National Programs Staff and Dr. Edwin Civerolo of the Agricultural Research Service. We thank you for being here and I might add that Bill has been the spokesman for the administration on this issue and we've had many, many meetings and he has become familiar to most Floridians on this subject. He met with me on Wednesday in my office, and he's devoted so much of his time to the eradication of canker that I want to publicly thank you for spending so much time on this problem.

We have a short time this morning and, as you know, the Senate met all day Saturday and we will meet again today starting at noon. The first vote is at 2:30. My plane leaves at 12:30, so I would like to have a 5-minute statement from our witness which will be followed by questions.

Thank you. Bill, would you be the first to speak?

**STATEMENT OF HON. C.W. McMILLAN, ASSISTANT SECRETARY, MARKETING AND INSPECTION SERVICES, U.S. DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY WILLIAM HELMS, ANIMAL AND HEALTH INSPECTION SERVICE; DR. EDWARD KNIPLING AND DR. EDWIN CIVEROLO, AGRICULTURAL RESEARCH SERVICE**

Mr. McMillan. Thank you very much, Senator.

I do appreciate this opportunity to appear at your hearing today to discuss something that is of critical interest to all of the citrus growers in Florida as well as elsewhere in the United States.

The question of citrus canker is one that really strikes fear into any citrus grower. Your interest in this, what you've been doing in Washington, and the hearing today are to be commended.

I will summarize the statement underscoring the concern we in the Department of Agriculture have, and reviewing just a little bit of the background.[1] Citrus canker was verified, as I recall, on

[1] See p. 59 for the prepared statement of Mr. McMillan.

August 27. Research at the University of Florida, University of Delaware, and the ARS facility did confirm that this was a form of citrus canker.

The USDA already had been cooperating with the Florida Department of Agriculture and we had additional personnel already on the way to Florida to assist in the program. When you look at the Federal Government, on many things, when they want to act fast, they can. In this particular case, Secretary Block declared an emergency on September 11, soon after it was verified. That gave particular note as to the concern we had about the disease.

That declaration of emergency meant we could further cooperate with the State of Florida and we would match State funds to eradicate the citrus canker. The part of the overall program the USDA has, as contrasted to the Florida Department of Agriculture, is to protect the citrus industry in the overall United States. As a consequence, we have to impose restrictions on interstate movement of the affected product. We imposed a quarantine on September 14, which would prohibit the movement of any citrus from Florida to any citrus-producing State in the United States. Unfortunately, when you move in a direction of this sort, you create confusion because it's generally the unknown that bothers you more than the known. But it soon became clear that the Florida growers, based on the ability to certify that there was no canker present in certain groves, would be able to move their product. Essentially, we were talking about limes, lemons, and maybe a few early grapefruit that were beginning to move at this point in time.

There is no restriction on the movement of products from Florida to any non-citrus-producing State in the United States providing the grove has been certified as being free and that the packaging house does treat the product with a chlorine solution.

Now, that chlorine solution is nothing more than a kind of an added precaution because it does kill the bacteria that may be present on the outside of the fruit. It's just an added precaution even though the product is not permitted to move into any of the citrus-producing States.

Now, we have heard a great deal about this strain and that it came from Mexico. I'll not dwell on this now. I anticipate that there will be other technical questions, and I might draw upon the expertise of these scientists that are sitting here with me today to be more precise in answering that question.

We verified that Mexico had a form of citrus canker in 1982. Upon learning of this, the United States immediately quarantined the entire country. This shut off all shipments of all citrus from Mexico into the United States. That gave us an opportunity, working with the Mexicans, to see just exactly what this citrus canker did, where it was located and how we could best handle it.

First of all, we discovered that it only attacked Mexican or key limes and did not attack the fruit; it attacked only the leaves and stems. After that determination was made, we began to permit shipments to the United States, with essentially the same kind of restrictions that we have on the shipment of Florida citrus into non-citrus-producing States in the United States. We applied the same principle in the case of Mexico, and then later on, roughly a year-and-a-half after the initial discovery was made, we did permit

Mexican citrus, other than limes, into other parts of the United States.

I emphasize that the strain that we now have in Florida is not the same as the Mexican strain. We'll probably get into that a little bit more during the questions and answers. We did immediately apply what really amounts to a more severe restriction on Mexico when we cut the entire industry off until we could really assess the impact of the Mexican citrus.

There is something the Senator said that is critically important to this picture. That is that citrus canker can in no way be transmitted to humans.

You have different types of bacteria; those that attack warm-blooded animals and those that would attack plant material. This particular bacteria only attacks plant material; therefore, there is absolutely no risk to humans with this particular infestation. I emphasize that because we have very often been asked that very question.

Also, the Department has formed a scientific panel to look at the overall quarantine procedure and regulations currently in place at the USDA. It's being chaired by Dr. Eden, who at one time was head of the department of entomology at the University of Florida, and later on at Auburn University. He was the former president of the Entomological Society of America. He will be serving with five additional people, including an industry representative and a State regulatory type, who are analyzing all of the quarantine procedures.

There is a whole series of things that have happened and I think it's well, once in a while, to sit back and assess where you are. You had the Medfly outbreak here in Florida. Fortunately quick action on the part of the Florida Department of Agriculture confined it to Miami. We had a single fly discovery in California. We have the citrus canker problem in Florida, and there are other things that are under consideration in the USDA. We think it's fine, once in a while, to look at the overall program and see where it can be improved. They may not have any recommendation for improvement, but their scientific task is to look at the overall program and then make recommendations.

In closing, Senator, I emphasize the very important part of cooperation. The lead agency in this eradication program in Florida is the Florida Department of Agriculture. The U.S. Department of Agriculture is a cooperator. The overall program direction is under Commissioner Conner, but Charlie Poucher has been named by him to be project director.

In other words, cooperation is the key, and I can't say enough about the fine cooperation we have received from the State of Florida and also the industry in Florida.

Whenever you have a critical problem like this, it takes all of the players to cooperate in every way possible and I will say, without qualification, that everybody in Florida is certainly showing that they are doing all they can to get rid of this potentially devastating problem.

I do have one final thing that I request. There is a fact sheet that was a part of my testimony that I think will be helpful in a scientific sense.

I will be very happy to answer any questions that you may have.

Senator HAWKINS. Thank you, Mr. McMillan.

I appreciate your statement that citrus canker has no effect on humans. I think it's the responsibility of the press, as well as ours, to continue to reiterate that citrus canker does not effect humans and poses no health hazard whatsoever to people who eat or drink citrus products.

And it's only fair to the Florida citrus industry that the people be told this and told again that this problem will not effect the citrus products that we buy at the grocery store.

The Animal and Plant Health Inspection Service, which is called APHIS, is at the forefront of our Government efforts to keep our country free from animal infections.

Has APHIS experienced any significant budget cuts?

Mr. MCMILLAN. APHIS has had some budget cuts but they are not in the area of plant protection and quarantine. They have been more on the domestic animal-disease side.

I consider that agriculture quarantine inspection is the No. 1 job of the APHIS and that has received the No. 1 priority.

Senator HAWKINS. So far, this Federal Government has matched State funding in efforts to track and halt the spread of this disease.

Do you know how much money the Federal Government has spent so far?

Mr. MCMILLAN. This is toward the end of the U.S. fiscal year, so, in the month of September we have spent in the vicinity of $500,000, which has been matched by the State of Florida.

Senator HAWKINS. About half a——

Mr. MCMILLAN. Half a million; $500,000.

Senator HAWKINS. Would there be any problem in obtaining enough money to continue matching the State efforts if this citrus canker were to get out of hand?

Mr. MCMILLAN. No; the Department of Agriculture, Secretary Block and all of us in the Department are dedicated to eradicating this citrus canker in Florida and we anticipate no monetary problems.

Senator HAWKINS. During the recent outbreak of avian influenza, the USDA confiscated those farms and had destroyed their flocks of poultry.

In order for you to provide the same type of compensation for our people, what first would have to occur and how much could such compensation end up costing the Federal Government?

Mr. MCMILLAN. Let me address the latter part of that question first.

Nobody knows. The question is the severity of the spread of citrus canker. Until that is determined, nobody would really know, if we were to embark on any kind of compensation program, what that cost might be.

You were correct that the recent avian influenza outbreak in Pennsylvania and Virginia did provide for indemnity payments to those poultry producers.

The reason an extraordinary emergency was declared in this case was that the States of Pennsylvania and Virginia said they were unable to carry out any kind of eradication program and

that's not the case in Florida where we have a cooperative program under a regular emergency.

We don't have at this point it time any plans to declare an extraordinary emergency in the case of Florida. I think it's significant that recently, Bobby McKowen, executive vice president of Florida Citrus Mutual, said to me and you that their board of directors had brought up the question of compensation. They felt, frankly, that it was premature to make any decision on whether there should be compensation at this point in time. So, we have no plans, that is, the Federal Government has no plans to declare an extraordinary emergency.

One final point on this: Even if we could pay compensation, there is no authority to make retroactive payments. The lawyers tell us that would not be possible.

Senator HAWKINS. Was that true in the avian outbreak?

Mr. MCMILLAN. Yes.

Senator HAWKINS. Some people have suggested that compensation is necessary because crop insurance doesn't cover pests and disease loss.

Why aren't these losses covered?

Mr. MCMILLAN. Well, I'm not an expert on Federal Crop Insurance. That falls under another Assistant Secretary in the Department, but I'm informed that the Federal Crop Insurance Program involves what they call named perils.

I'm on thin ice when I start responding in this regard, because I just don't deal with it on a day-to-day basis. But, for example, fruit in your freeze here in Florida last December, the freeze, I guess, was a named peril. Therefore, the losses that did occur on those that had Federal Crop Insurance were covered in the loss of the fruit.

There was a pilot program in Texas—as we all know, they were affected by the freeze as well. That pilot program included the trees that were lost due to the freeze. But, the key phraseology that the Federal Crop Insurance people tell me is the named peril and that is not covered in this particular case. I'm told that it might be covered with certain actions, but I have no idea what their premium might be.

Let me make one more comment in regard to compensation. The fact that we have not at this point any plans to compensate for losses, doesn't lessen the severity of the disease and the financial problems that are imposed on those who have had the citrus canker appear in their nurseries to date. We are totally sympathetic with them, but, here again, we just, at this point, still don't have any plans to compensate.

Senator HAWKINS. Would you have Under Secretary Frank Naylor submit for the record, an answer to it?

Mr. MCMILLAN. The named-peril approach?

Senator HAWKINS. Yes.

Mr. MCMILLAN. I will be happy to do that, Senator.[1]

Senator HAWKINS. We were having a conversation last week about the tomato and pepper crop coverage in Florida and this

[1] See p. 15 for the response from the Department of Agriculture.

question was brought up and I believe he brought me up to date on it. If you were to ask that of him and keep us apprised on it——

Mr. McMillan. I'll sure do that.

Senator Hawkins. Where is citrus canker located in the world today?

Mr. McMillan. Well, I'm going to call on one of the scientists, Dr. Civerolo or others to be more precise.

But, we, of course, have the Mexican strain; it is in Argentina and in Brazil, some parts of the Far East, and some parts of Japan. Dr. Civerolo, would you like to be more precise in response to that question?

Dr. Civerolo. Yes.

That generally covers the distribution. The disease occurs primarily throughout Asia, including India. It also occurs in South America, and most recently in the formative disease, it has occurred in Mexico.

There are some reports that this disease occurs in parts of Africa, but that's the general distribution of the disease.

Senator Hawkins. Are there any others in addition to the countries that Mr. McMillan mentioned?

Dr. Civerolo. Yes. Brazil, Argentina, Uruguay, Paraguay, and South America, Mexico, Latin America, Japan, Taiwan, China, India, throughout Indonesia, and I would say there are some reports of the occurrence of the disease in some parts of Africa. I'm not too sure how verified those reports are.

Senator Hawkins. Are there any reports of the canker in Israel?

Dr. Civerolo. No, it's not in Israel or any other country around the Mediterranean, as far as I know.

Senator Hawkins. Mr. McMillan, can you please describe the precautions that are taken to ensure that infected fruit from these countries is not brought into our country?

Mr. McMillian. Let me go into it and then perhaps Bill Helms can expand.

We have in place, of course, our agricultural quarantine inspection program. That occurs at all of the various ports of entry. We have—not only the passengers who come in to ports like Miami International Airport, but we also have the coverage in Miami for ship arivals, for example, on more of a commercial scale. Those inspections are made by our plant protection and quarantine people.

If I recall right, we had this past year in Miami, at the airport alone, about 150 different seizures of citrus from South America that were infected with canker.

I would like to have Mr. Helms be more expansive on that.

Mr. Helms. Senator, of all of the countries that Dr. Civerolo mentioned, we only allowed citrus into the United States with certain safeguards and with certain resrictions from two of those countries. Japan has an established production area that is free from citrus canker. They have a prescribed buffer area around that production area. We send our own officers over several times a year to examine that area to make sure that they are adhering to the protocol for movement of that citrus.

That strain in Japan, as I recall, is the A-strain, the most virulent one. But, again, we restrict the destination of that product in

the United States. Currently, it can come only into five States in the Northwestern United States.

The other country that has citrus canker which we will allow fruit in from is Mexico. Then, it comes in under very stringent safeguards.

The organism that occurs in Mexico is not known to affect the fruit itself, but we still have restrictions on the movement of that fruit into this country.

We don't allow fruit from other parts of Asia. We don't allow fruit from South America, because they have not taken any kind of action to prevent dissemination of the disease. Only juice concentrate can come in from those particular countries.

Senator HAWKINS. You're telling me that I could bring a truck load of citrus across the border from Mexico into Texas?

Mr. HELMS. If it comes from certain geographic areas, which we don't have under quarantine—and Mexico is an example as opposed to what is being done in Florida. When we find an infected tree in Mexico, we quarantine the whole State and don't allow citrus from anywhere in that State to come into the United States. We conduct periodic surveys in Mexico, at least three a year, in the production areas to determine the presence or absence of the organism. If we don't find the organism there, then we allow the fruit to come in when the same chlorine solution that we're using here in Florida is used and there are the necessary certifications with that shipment to indicate it came from a State that has not been quarantined by the U.S. Department of Agriculture.

Senator HAWKINS. There are six States in Mexico currently under quarantine?

Mr. HELMS. That is correct.

Senator HAWKINS. And dogs and x-ray machines are used at the point of entry?

Mr. HELMS. Yes.

Senator, we have just implemented a program that uses detector dogs. These dogs are trained to detect plant and animal materials in air passenger baggage arriving at our international airports. It's new technology. It's quite exciting to us. It seems that the dogs are much more efficient than humans.

Unfortunately, the only airport where we have been able to use these dogs is in Los Angeles. We would like to be able to use these dogs in our screening process for arriving international air passengers at places like Miami and JFK in New York.

Unfortunately, in some of those locations the airport authorities are concerned about dogs. I might mention that the dogs we use are referred to as nonaggressive; in most cases, they're beagles.

When they detect in a traveler's baggage an orange or whatever, they don't attack it; they simply sit down; they just sit. And the dogs have been well-received by the public. Most people want to pet them.

The dogs do have a little coat on that indicates that they are controlled by the U.S. Department of Agriculture.

The program has been well-received and we are certainly interested in expanding both the detector dog program and other new technology such as x-ray machines. These are high resolution ma-

chines which enable us to see fruit and meat products in passenger's handbags, or their suitcases, or whatever.

Senator HAWKINS. Have you had problems getting this program implemented in Miami?

Mr. HELMS. Senator, we certainly have made overtures to about four major airports, San Francisco, Los Angeles, Miami, and the airport authority responsible for JFK in an effort to get our dog teams in their force.

Los Angeles, at this point in time, is the only airport that has been receptive to this. We are hopeful that the other three airports are watching the progress we are making in Los Angeles. We will again be making overtures to those other three major airports and hope that in the near future we will be able to put some of our dog teams in their airports.

Senator HAWKINS. I'll be of great assistance to you in Miami.

Mr. HELMS. We would appreciate that.

Senator HAWKINS. Mr. McMillan, you talked about buffer areas or someone talked about buffer areas in Japan.

It is possible then, in the future, Florida would have buffered areas like Japan?

Mr. MCMILLAN. During the eradication program, the plan is to use the term "buffered areas." These would be areas or zones that are determined to be free of citrus canker. That product is what I spoke of during my opening statement that would move to the packing sheds where the treatment with chlorine would occur and then permission is given to ship to non-citrus-producing areas.

And, in this case, we're only speaking of fresh fruit. The frozen concentrate, of course, would be a different situation.

Senator HAWKINS. Do postal service regulations pose a problem in efforts in keeping canker-carriers out of this country?

Mr. MCMILLAN. They certainly do.

Senator HAWKINS. Tell me about it.

Mr. MCMILLAN. The problem we have with the postal service regulation is, we don't have the opportunity to inspect first class mail.

Now, most people think that the first class mail is a letter or an envelope, but in the case of Hawaii, as an illustration, I am told that it's cheap to send a package, let's say of mangos, from Hawaii by first class mail. We would not have an opportunity to inspect that package when it leaves the State of Hawaii or enters the mainland.

Interestingly, during the summer months, the U.S. Postal Service had an advertisement that appeared in Reader's Digest. As part of that visual, they had a little postcard that says: I hope you received the mangos we sent from Hawaii.

We mention Hawaii only because it has all of the major fruit flies over there that could be devastating to the citrus-producing or the fruit-and-vegetable-producing States on the mainland.

The U.S. Postal Service was embarrassed and has withdrawn the ad. The point is, that we still don't have access to those first-class mail packages that we suspect may contain pest or disease-bearing fruit; for example, mangos. These items could be coming to the mainland and could cause problems for us here.

Now, as a part of the overall APHIS program, we draw profiles not only of people but names and locations as well. And very often,

more often than not—I've been in Hawaii and observed this—the destination of a package from Hawaii, let's say, to certain locations in California, basically tells us that it may have contraband fruit in it, but we don't have access to inspect it.

Senator HAWKINS. Under the emergency declaration, would we be able to get their cooperation or would it require legislation?

Mr. MCMILLAN. I think it would require a change in the statute.

Senator HAWKINS. Are there still signs in the airports—particularly in Florida, warning against bringing in food materials?

Mr. MCMILLAN. Well, that's one of the problems, one of the ongoing problems.

The airlines and the airport authority sometimes are not anxious to have signs around as we would like in the way of a warning. I've been on planes coming to Miami for example, from Central America or Mexico, where the airline will make an announcement when the customs card is passed out on board the plane and, many people don't hear it.

We think it would be tremendously helpful to have signs also in the baggage claim areas of these airports to give further warning that fruits or meats, or whatever may be the case, could be confiscated and why it's necessary to confiscate it.

Senator HAWKINS. I remember when they put the signs in the Miami airport.

Are they still trying to find out who took them down?

What authority do you have to ensure that people do not bring in contraband matter?

Mr. MCMILLAN. We now have authority to impose fines on the scene and that has been helpful.

I would like for Mr. Helms to explain that, if you would.

Mr. HELMS. We have recently had legislation passed that gave us the authority to assess civil penalties, to assess fines on the spot. Heretofore, we had to go through the Department of Justice for prosecution of any violation of rules or regulations and this was very time consuming. Unfortunately, this was very time consuming and Justice was more interested in felony and major crimes and many times would even forego prosecution on agricultural cases.

Now, we do have authority to work closely with Customs and we're able to assist and assess fines in ports of entry against people who bring nonenterable articles.

We give the individuals a minimum of two and a maximum of three opportunities to declare they don't have a prohibited agriculture commodity. No. 1, they fill out a custom's declaration and they check on there, yes or no. If they check no and they fit our profile, we have reason to suspect they may have an agriculture product that is prohibited. They are further questioned and asked specifically: Do you have any fruit, vegetables, or animal products?

If they say no, and our officers at the port of entry, like Miami, conduct a search of their baggage and find a prohibited article, then they receive a fine on the spot.

The fines, in these instances, run anywhere from $25 to $50 and can run up for repeated violations to as high as $500 to $1,000.

So we believe this is a mechanism that, over a period of time, is going to make the traveling public aware that we are very serious

about violations of the rules and regulations on plants and animal products that are prohibited entry into the United States.

Senator HAWKINS. As you know, Mr. McMillan, on April 5 of last year, I wrote the Department of Agriculture expressing my concern that the USDA's proposed regulations of quarantine against Mexican fruit could result in an infestation of canker in the United States.

I know that industry representatives are also very concerned.

Can you explain what actions were taken in response to those warnings?

Mr. MCMILLAN. Those regulations were designed to modify the Mexican system actually in a way that we felt was more stringent than what it is currently. We would not permit the shipment of any citrus from Mexico if it originated from areas where there were Mexican or key limes growing. In other words, they would have to totally eliminate those. This was a proposal that appeared in the Federal Register. That comment period is closed and they are still looking at those comments.

Senator HAWKINS. I also wrote your Department April 12 of last year about another proposal to allow Unshu oranges from Japan known to have a canker problem into more States in the United States.

What was your response; do you remember?

Mr. MCMILLAN. Again, that was in the form of a proposed rulemaking for modifying the number of States, and I emphasize, non-citrus-producing States, to which Unshu oranges could be shipped from those areas that were determined to be free of citrus canker in Japan.

This went into the Federal Register and the comment period has closed, but no action has been taken on that yet.

Senator HAWKINS. Would the current outbreak of citrus canker in Florida cause you to rethink your positions as you review these answers to the comments?

Mr. MCMILLAN. That was part of the reason for appointing the scientific panel—to look at and reassess the current proposals, those that are in place and the regulations and statutes.

Let me make one comment back on Japan, if I might, because this is something that is not generally known. We have ongoing consultations with the Japanese. Our APHIS people meet twice a year with the Japanese counterparts and they develop as best they can protocols on the movement of fruits or other products in both directions, to and from. Fortuitously, just last week, we had one of those regular consultations and we were able to explain the overall situation here in Florida. The Japanese had an on-the-ground look at the Florida situation and the quarantine procedures that are in place. This is critical because we are coming up on the time when Florida will be wanting to ship grapefruit to Japan. Part of the overall plan here is to have the free areas; we want the Japanese to continue to accept Florida grapefruit. I only mention that in passing because they were here last week, and although we don't have official word back, we are hopeful that they accepted the procedures that we have in place.

Senator HAWKINS. In those foreign countries which currently have citrus canker, what efforts are underway to eradicate this disease in those countries?

Mr. MCMILLAN. I'm not actually clear. We're cooperating on this particular problem. Japan has the free areas, but I would like for Dr. Civerolo to be more expansive on that.

Dr. CIVEROLO. The only country that I know that has an active citrus canker eradication program going on at the moment is Uruguay in South America.

My understanding is that eradication programs in other parts of South America, such as Argentina, have been suspended. I'm not sure what the current status of the program in Brazil is.

Senator HAWKINS. How about Mexico?

Dr. CIVEROLO. There is no eradication program in effect in Mexico right now.

Senator HAWKINS. In order to control the spread of canker and any pests, such as the Medfly, does the United States provide financial assistance for eradication programs in other countries?

Dr. CIVEROLO. Not that I am aware of.

Mr. MCMILLAN. Senator, we do have a cooperative program with Mexico and Guatemala on the Mediterranean fruit fly eradication.

We have a commission between the three countries. We put funds in and the idea is to eradicate Medfly in Mexico, which will provide a bigger buffer and then eventually move the buffer on into Guatemala.

Senator HAWKINS. Would it be a good idea to include canker?

Mr. MCMILLAN. Well, obviously, anytime you can eliminate or provide an added protection for U.S. industries of this sort, yes, it's a good idea, but I'm not sure that the state of the art is to the point where we would be able to do that.

Maybe Dr. Civerolo would want to expand on that.

Senator HAWKINS. I understand, Doctor, the Mexicans want us to pay for any groves we destroy; is that true?

Dr. CIVEROLO. I would have to defer to the regulatory people about that.

Your question, again? I forgot your initial question.

Mr. MCMILLAN. The cooperative program.

Senator HAWKINS. On the Medfly in Mexico.

Dr. CIVEROLO. We have an ARS scientist in Mexico right now working in Colima, and part of his responsibility is to work on the chemical control, possible eradication procedures and other aspects of the disease in the field.

Senator HAWKINS. That's still for the Medfly?

Dr. CIVEROLO. No; this is for citrus canker in Mexico and it's a research position.

Senator HAWKINS. Mr. McMillan, has your Department done an audit of eradication programs which we have subsidized in our country?

Mr. MCMILLAN. An audit?

Senator HAWKINS. Yes.

Mr. MCMILLAN. Well, I have seen it put down in terms of an audit, but for the record, I would be very happy to supply the Senator with what information we have on cooperative programming.

The Medfly, the screwworm are two that come to mind immediately.

Mr. HELMS. I can comment on this.

All our work in Mexico being cooperative in nature is carried out through cooperative agreements. These cooperative agreements are accompanied by work plans that have both actions and money applied to those particular actions.

Those plans are audited jointly between our people in APHIS and the Mexican Government, at least on an annual basis, so we do have in place a very good tracking mechanism to see that that money is being spent as it was agreed upon. These plans are developed 1 to 2 years in advance on the actions that need to be taken on a particular program in Mexico and there is a very definite process of following up to determine that, in fact, the money was spent as agreed.

Senator HAWKINS. I understand from our growers and from others that have visited Mexico, they are pretty miserably managed.

Can you provide for me the lastest copy of the report you're talking about, Mr. Helms?

Mr. HELMS. Yes; we'll be glad to make that a part of the record.[1]

Senator HAWKINS. Mr. McMillan, you stated that this disease of canker that we have now is not like any other previously identified strain of citrus canker.

Is there any way that your scientific people can tell if any particular strain was mutated from a bacteria found in any specific country?

Mr. MCMILLAN. I think that you'll find that there is still a great deal of work being done on that. I don't think that the epidemiology is absolutely proven that there is a mutation present but that is certainly one option and perhaps Dr. Civerolo would like to comment on that.

Dr. CIVEROLO. There probably are ways that we can determine whether this bacterium in Florida is related in any way to any of the strains in any other country outside of the State of Florida; that work is ongoing. There are genetic analyses that could be done, some serologic analyses that could be done and these are ongoing right now.

Senator HAWKINS. Do we have the technology that would enable us to determine if the strain had been genetically engineered in a laboratory, Dr. Civerolo?

Dr. CIVEROLO. The technology probably exists, but it's unlikely that is the case here.

Senator HAWKINS. But, you're not sure?

Dr. CIVEROLO. No; I'm not absolutely sure.

Senator HAWKINS. Dr. Civerolo, can you tell us what kinds of citrus canker research protection are currently underway?

Dr. CIVEROLO. I'd like Dr. Knipling to answer that.

Dr. KNIPLING. Senator, the USDA Agricultural Research Service has two scientists devoted to the problem at the present time and has for the last several years, well before the Florida outbreak.

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[1] See p. 15 for additional material from the Department of Agriculture in response to questions from Senator Hawkins.

Dr. Civerolo, here on my left, is essentially spending full time on the project at Beltsville, MD, and it was also pointed out earlier we have had a scientist located in Mexico for about the past year. Much of this research is orientated toward identifying techniques, characterizing the organism, determining its host range and so forth.

Senator HAWKINS. You say you have two people assigned to it?

Dr. KNIPLING. Yes.

Senator HAWKINS. Do you know the budget commitment to this disease?

Dr. KNIPLING. I would say approximately $200,000, total.

Senator HAWKINS. Annually?

Dr. KNIPLING. Yes.

Senator HAWKINS. How much money on research would you expect it to take to create a breeding stock of citrus stock that would be resistant to citrus canker?

Dr. KNIPLING. First, I would like to say that this is obviously one approach to the problem; it's a promising approach, but a very long-term approach. I would estimate that we would want to develop at least two scientists' use to this approach annually at a cost of about $250,000 per year. The initial approach would be to evaluate the varieties and the germ plasm that we now have in this country. If we were lucky and found resistance, it may be a shorter term project, but even so, we would have to integrate that germ plasm into the existing or new citrus varieties.

Plant breeding programs, to develop a new variety from scratch, traditionally will take 8 to 10 to 15 years. There are other promising research approaches as well.

Senator HAWKINS. Dr. Civerolo, back to the question where the strain came from that we now have in Florida, do you have an active program to determine where this strain may have come from and when could we expect some answers?

Dr. CIVEROLO. The program that we have going right now on the characterization of the strain from Florida hopefully will give us some information about its origin.

At the moment, we have no indication about where it came from.

Regarding how long it would take before we knew that, I would say we are as much as a year, possibly 2 years away from knowing that. At this time, I really don't know.

Senator HAWKINS. What is the Agricultural Research Service's relationship to the State universities, for example, IFAS at the University of Florida?

Dr. CIVEROLO. I would defer to Dr. Knipling.

Dr. KNIPLING. We have an outstanding relationship with the State university experimentation station, particularly at Gainesville, at the University of Florida.

We have approximately 70 USDA scientists located, colocated at Gainesville; many of them in university facilities. Likewise, at some of the branch experiment stations around the State.

Senator HAWKINS. How do you determine whether the Federal Government or the universities will perform research on pests and disease?

Dr. KNIPLING. There are no clear-cut criteria for distinguishing what agency or institution approach is a problem. More often than not, it's a shared responsibility, a cooperative responsibility.

We increasingly are trying to move toward some guidelines that help define relative roles, so to speak. In generalities, I would say that the Federal Government tries to deal with problems of national concern or broad regional concern. It also deals with some of the longer range problems that require very long-term research commitments and also where we may have some special facilities or scientific capabilities that the universities don't have. On the other hand, the State universities are perhaps obligated to deal with some of the State and local problems, but a problem, severe problem like a citrus canker being of national concern really will require the cooperation of both the agencies' institutions and perhaps even call upon scientific expertise in other States where it may be available.

Senator HAWKINS. Thank you, gentlemen. I appreciate your testimony and answers and I look forward to additional comments that you have for the record.

[The following material from the Department of Agriculture in response to questions from Senator Hawkins was subsequently received by the committee:]

CITRUS CANKER

Question: Some people have suggested that compensation is necessary because property insurance doesn't cover pests and disease loss. Why aren't these losses covered?

Response: The citrus canker situation in Florida has led to several inquiries regarding crop insurance. The Florida programs offered today do not insure trees and the production guarantee contract excludes disease and insect damage as a cause of insurable loss. Thus, the FCIC has no potential liability for losses under the current contracts. This case raises the issue of losses to insured plants that have not been directly affected by an insured hazard, but whose destruction is required by the lawful order of a public official in order to control the further spread of an insured hazard. The FCIC position has been and continues to be that such losses are not an insurable risk.

ATTACHMENT A

SURVEY AND IDENTIFICATION: CORRESPONDENCE

Dr. Civerolo's Memo Concerning the Identification
of Citrus Canker and B Strain in Mexico

November 17, 1983

H. Ford, Deputy Administrator, PPQ
Washington, DC

Through: B. Glen Lee, Emergency Programs Coordinator, PPQ
Hyattsville, MD
Harold Shirakawa, International Programs Coordinator, PPQ
Hyattsville, MD

Citrus Bacterial Canker Disease (CBCD) was first reported to occur in Mexico in July 1982. Since the time of this initial report, we have been at a disadvantage in formulating appropriate regulations due to a lack of knowledge concerning the disease and its pathogen as present in Mexico. Some of the most important unanswered (or incompletely answered) questions would seem to be:

1. Is the pathogen that is causing the disease observed in Mexico actually Xanthomonas campestris pv. citri?

2. If the pathogen is Xanthomonas campestris, is it possible (as the Mexicans have argued) that it is a pathovar (pv.) other than citri?

3. If the pathogen is pv. citri, what strain is it (A, B, C, or a previously undescribed strain)?

4. Does the pathogen present in Mexico possess any characteristics that may be of special significance in developing regulations to protect the U.S. citrus industry?

In a memorandum dated November 10, 1983, Dr. Edwin Civerolo (Agricultural Research Service, Beltsville, Maryland) summarizes the results of recent research conducted in his laboratory. Included in his summary and discussion are several points that appear to answer the questions listed above. These points include:

1. The finding that a bacterium identified as Xanthomonas campestris can be isolated from lesions occuring on lime leaves from Colima, Mexico. the identification of bacterium as being Xanthomonas campestris is based on the use of the full array of modern taxonomic techniques. This identification seems now to be beyond question and is supported by results obtained by several other recognized experts.

2. The form of Xanthomonas campestris associated with the lime disease in Mexico appears to be extremely difficult to isolate, and once isolated is usually difficult to maintain in a culture. It is not clear why these bacteria are so difficult to isolate and maintain in culture, but this does seem to explain why laboratories in the United States and Mexico have had difficulty confirming the identity of the pathogen.

3. Since the pathogen in question belongs to the species Xanthomonas campestris, and since the disease has been observed only on citrus and is generally similar to other forms of CBCD, Dr. Civerolo is now confident that the identification of the isolates from Mexico as pv. citri is correct.

4. Using the most up-to-date identification techniques (phage sensitivity, plasmid profiles, and composition and ratios of fatty acids), it appears that all of the isolates of Xanthomonas campestris pv. citri so far obtained from Mexico are similar to the B strain of CBCD. Dr. Civerolo and other scientists have made over 200 isolations, and to date, no bacteria similar to either the A or the C strains of CBCD have been detected.

5. The significance of number 4 lies in the fact that the B strain of CBCD is not a very agressive pathogen and has an extremely restricted host range compared to the more virulent A strain. In the field in Argentina and Brazil, the B strain is only important in causing CBCD on lemon and lime.

/s/ Steven Poe

Steven Poe
Plant Pathologist
National and Emergency Programs
Plant Protection and Quarantine

ATTACHMENT A

Summary Report--Citrus Canker--Mexico

Date: November 17, 1983

H. Ford, Deputy Administrator, PPQ
Washington, DC

Through: B. Glen Lee, Emergency Programs Coordinator, PPQ
Hyattsville, MD
Harold Shirakawa, International Programs Coordinator, PPQ
Hyattsville, MD

The following report provides a summary of the ad hoc survey for citrus canker disease conducted in Mexico during part of September 1983. The survey was conducted by teams consisting of U.S. and Mexican plant pathologists and citrus specialists. The objective of the program was to conduct intensive surveys carried out by trained specialists to detect any occurrence of citrus canker outside of the current known infested areas in the States of Colima, Jalisco, and Michoacan. The survey was conducted in those areas in Mexico where significant amounts of citrus are grown. This includes portions of the States of Jalisco, Michoacan, Sonora, Sinaloa, San Luis, Guerrero, Oaxaca, Yuccatan, Nuevo Leon, Tamaulipa, and Veracruz. The selection of specific survey sites was based on subjective criteria and the experience of the scientists conducting the survey. This survey did not rely on a predetermined biometric design, but rather on the efforts of the survey teams to locate and inspect those locations that in their judgement would be likely spots for citrus canker disease to be introduced into or to become established. In addition, an attempt was made to have the survey be as comprehensive as possible in the time allotted.

Prior to the survey, three members (Messrs. Talpas, Smith, and Dr. Shoulties) of the U.S. group, who lacked previous experience with citrus canker, traveled to Colima for several days of intensive training. All other members of the U.S. group had participated in previous surveys, and were experienced in recognizing the form of citrus canker present in Mexico.

On September 21 an orientation meeting was held in Mexico City for all participants in the survey. Following this meeting, the survey teams traveled to the various locations in Mexico where the survey was to be conducted. The actual survey was done on September 22 through September 26 with most of the survey teams returning to Mexico City on the afternoon of September 26.

In all cases, survey activities were conducted with the aid of local Sanidad Vegetal (S.V.) officials. The success of the survey depended to a large extent on the knowledge of local conditions and geography provided by officials. In almost all cases, the local S.V. officials were extremely helpful and cooperative, and often went out of their way to ensure the survey was as comprehensive as possible.

On September 27 the survey team members met in Mexico City with representatives of Plant Protection and Quarantine (PPQ), International Programs staff, and with S.V. officials. This meeting provided an opportunity to discuss survey results and to examine and evaluate any specimens that had been collected on the survey.

Specimens (leaves) showing possible evidence of citrus canker disease were collected at four locations on the survey. U.S. experts (Drs. Civerolo, DuCharme, Alverez, and Miller) determined that three of the samples showed only symptoms of lime anthrachose (Gloeosporium limetticola). The remaining sample, collected near Tomatlan, Jalisco, was determined to be infected with citrus canker disease. This sample was collected from a grove in which citrus canker had previously been detected and which had been subjected to a limited eradication attempt. The fact that this sample had been collected following an eradication attempt suggests that the first attempt was not entirely effective and that this grove should be subjected to a far more extensive eradication program.

Discussion: Following the survey, an informal review was held involving U.S. survey participants and PPQ staff members. The consensus of opinion was that the survey had accomplished its objectives. While it is impossible to do a comprehensive survey of the tree-by-tree type in the limited time available, the participants felt that the surveys conducted were adequate to detect citrus canker disease, if it was present in any citrus-growing area at significant levels.

The single citrus canker detection resulting from the survey served to confirm the earlier detection (by S.V.) near Tomatlan, Jalisco, and to establish the fact that eradication efforts conducted at this site had been inadequate. Scientists and officials from the United States and Mexico are currently evaluating available eradication methods to develop a more effective eradication program.

Stephen Poe
Plant Pathologist
National and Emergency Programs
Plant Protection and Quarantine

Enclosure
Survey Locations, Participants, and Results

| STATE | SURVEY LOCATIONS | SURVEY TEAM | | SPECIMENS COLLECTED | DIAGNOSIS |
|---|---|---|---|---|---|
| | | U.S. | MEXICAN | | |
| Tamaulipas | Tampico, Cd. Mante, Ocampo, Antiguo Morelos, Ras De Xicotencatl | Terry Smith (State of Florida) | Ramiro Gonzalez | No | |
| San Luis Potosi | Cd. Valles, San Vicente, Tamuin, Cd. Santos, San Martin, Rio Verde | Jose Esparza (State of California) | Antonio Castrejon | No | |
| Veracruz | Alamo, Temapache, Castillo De Teayo, Cerro Azul | Mike Davis (Texas A&I University) | Noe Becerra Lor. | No | |
| Veracruz | Papantla, Gutierrez Zamora, Cazones, Coatzintla, Poza Rica | Robert Kahn (PPQ) | Salvador Rodriquez | No | |
| Veracruz | Martenez de la Torre, San Jose Acateno, Tlapacoyan, Misantla, San Rafael | Stephen Poe (PPQ) | Vincente Diaz Balderas | No | |
| Jalisco | Puerto Vallarta, Cabo Corriente, Tomatlan La Huerta, Autlan, Casimiro Castillo | Ernest DuCharme (PPQ) | Rocio Ruiz Loaiza | Yes | Positive-- Citrus Canker (one location) |
| Tamaulipas | Cd. Victoria, Llera, Cuemez | Calvin Schoulties (State of Florida) | Teodora Herrera P. | Yes | Negative |

Emergency Programs
PPQ/APHIS/USDA
November 17, 1983

| STATE | SURVEY LOCATIONS | SURVEY TEAM | | SPECIMENS COLLECTED | DIAGNOSIS |
|---|---|---|---|---|---|
| | | U.S. | MEXICAN | | |
| Guerrero | Acapulco, Cd. Altamira | Edwin Civerolo (ARS) | Agustin Ramirez R. | No | |
| Michoacan | Apatzingan, Paracuaro, Tepalcatepec, Buena Vista Tomatlan, Francisco J. Mujica | John Miller (State of Florida) | Guillermo Vieyra | Yes | Negative |
| Sonora & Sinaloa | Hermosillo, Guamas, Cd. Obregon, Los Mochis, Culiacan | Dave Talpas (PPQ) | Fernando Velazquez M. | No | |
| Oaxaca | Rio Grande, Santa Rosa, Puerto Escondido, San Jose Del Progreso | Conrad Krass (State of California) | Jose G. Garza Lopez | No | |
| Yucatan & Campeche | Merida, Oxkutzcab, Hanucma, Tetiz, Kinchil, Izamal, Uman, Tenabo | Anne Alverez (University of Hawaii) | Jaime Munive Parra | Yes | Negative |
| Nuevo Leon | Montemorelos, General Teran, Monterrey, Allende | Dan Williams (PPQ) | Juan M. Ramirez D. | No | |

Emergency Programs
PPQ/APHIS/USDA
November 17, 1983

ATTACHMENT A

United States Department of Agriculture | Agricultural Research Service | Northeastern Region Beltsville Agricultural Research Center | Beltsville, Maryland 20705

November 10, 1983

SUBJECT: Citrus Bacteriosis Disease in Mexico: Identification of the Pathogen

TO: H. Ford
Deputy Administrator, PPQ-APHIS
Room 302E, South Building
Washington, D.C.

THROUGH: S. Poe

The citrus bacteriosis (CB) disease in Mexico has been identified as a form of citrus bacterial canker disease (CBCD) based on symptomatology; serological tests on field-collected samples using anti-Xanthomonas campestri-pv. citri sera; and isolation of bacteria identified as Xanthomonas campestris based on morphological, physiological biochemical ests. Diagnosis of the disease in Mexico as a form of CBCD based on symptomatology was corrobarated by several people, including U.S. and Brazilian plant pathologists familiar with CBCD. Identification of bacteria isolated from CB disease lesions in Mexico as X. campestris based on biochemical and physiological tests was independently done in the U.S. and in Mexico. Because of the association of this bacterium with a disease of citrus, we concluded that the pathogen X. c. pv. citri is involved in the etiology of the disease. Nevertheless, the precise identity of the pathogen and etiological nature of CB in Mexico is still not agreed upon by various workers in federal, university and private agencies in the U.S. and in Mexico. Observations that have made clarification of the etiology of CB perplexing include a very low frequency of isolation or at least recognition of X. campestris, apparent inability to maintain pure cultures of some of the isolated X. campestris strains, and an unusually wide variety of yellow (some xanthomonad-like) bacteria also associated with and isolated from CB lesions. Hopefully, some of this will be resolved through the work of Jim Stapleton in Mexico.

Under the current rules of the "International Code of Nomenclature of Bacteria", all of the X. campestris strains isolated from citrus and associated with the different forms of CBCD are designated pathovar (pv.) citri. By definition, all CBCD is caused by Xanthomonas campestris (X. c.) pv. citri. Thus, we have concluded that the CB-associated X. campestris strains from Mexico are variants of X. c. pv. citri.

My understanding is that Mexican pathologists and offficials consider that the X. campestris pathogen associated with CB exhibits unusual or distinctive pathogenicity because the disease affects only (or primarily) Mexican limes, and because the disease apparently does not affect fruit. Consequently they refer to the CB pathogen simply as X. campestris without assigning a pathovar designation.

At the Agricultural Research Center in Beltsville (BARC), work has continued on the characterization and identification of the few X. campestris strains already isolated. We have focused on tests that we feel will help us to specifically distinguish and identify CBCD-A, CBCD-B and CBCD-C strains. Two of these strains were isolated at BARC from the original field-collected material brought to Beltsville in 1982. Two additional strains were isolated in September 1983 in Tecoman, Colima. Most of the characterization work has been done with the strains isolated in 1982. As I indicated to the Citrus Canker Coordinating Committee at the meeting in Orlando, Florida, (June 16-17), these strains have the phage sensitivity, plasmid profile and fatty acid composition characteristic of two X. c. pv. citri CBCD-B reference strains. In addition, one of these strains was serologically similar to several other CBCD-B strains from Argentina in tests using monoclonal antibodies and conducted by Anne Alvarez in Hawaii. The fatty acid composition of one of the two most recently isolated strains in Tecoman was characteristic of all CBCD-B strains of X. c. pv. citri that we have examined so far. The second CB-associated strain isolated in Tecoman in September 1983 was serologically similar to one of the our reference CBCD-B strains of X. c. pv. citri in serological tests using monoclonal antibodies. Unfortunately, this strain was lost in culture and is no longer available. It is possible that we have lost other cultures of these bacterial strains during the past year.

In summary, the apparent difficulty in isolating (or recognizing) X. campestris strains from CB disease lesions, the difficulty in maintaining pure cultures of some of the X. campestris isolates, and the characteristics of a few of these strains that we have been able to maintain are consistent with the conclusion that X. c. pv. citri bacterial strains resembling CBCD-B strains are associated with the CB disease in Mexico. At this time, we do not have any indication from any of the tests that we have done that any of the bacterial strains from Mexico are similar to the CBCD-A or CBCD-C strains of X. c. pv. citri.

As you know, CBCD is a serious threat to citriculture worldwide. However, only strains of the pathogen associated with the CBCD-A form of the disease currently pose the most serious threat to citrus production. The restricted host range and reduced aggressiveness of the bacterial strains of the pathogen associated with the CBCD-B and CBCD-C forms of the disease limit their seriousness as potential threats to citrus production. The few bacterial strains of X. campestris that we have been able to isolate and characterize from CB lesions in Mexico appear to be most like CBCD-B strains of X. c. pv. citri

E. L. Civerolo

E. L. CIVEROLO
Research Plant Pathologist
Fruit Laboratory
Horticultural Science Institute

U.S. DEPARTMENT OF AGRICULTURE,
ANIMAL AND PLANT HEALTH INSPECTION SERVICE,
*February 7, 1984.*

Subject: Internal Control Review—Citrus Canker Quarantine Program.
To: Bert W. Hawkins, Administrator.
Through: Larry B. Slagle, Deputy Administrator, for Management. Harvey L. Ford, Deputy Administrator, PPQ.

The attached report documents for the purpose of OMB Circular A-123, Internal Control requirements, the results of the internal control review of the Citrus Canker quarantine program conducted by the undersigned and Mr. Ed Stubbs in October 1983. Our findings and conclusions were verbally reported to Mr. Ford immediately upon our return from Mexico.

ARTHUR J. WILSON,
*Acting Director,*
*Resource Management Systems and Evaluation Staff.*

Enclosure.

## INTERNAL CONTROL REVIEW/CITRUS BACTERIA CANKER DISEASE QUARANTINE MEASURES—MEXICO

### I. OBJECTIVES

The objectives of this review were to (1) ascertain whether or not prescribed quarantine measures are being applied to prevent the spread of Citrus Bacteria Canker Disease (CBCD) from the known infected areas in the Mexican States of Jalisco, Colima, and Michoacan, and (2) assess the vulnerability of the quarantine program to collusion, bribery, or fraud.

### II. BACKGROUND

After the discovery of CBCD in Mexican limes in certain areas of Mexico, interim regulations were published in the Federal Register on November 17, 1982, imposing restrictions and prohibition on the importation from Mexico of fruit and peel of citrus and citrus relatives. Subsequently, the regulations were amended several times as additional knowledge of the nature and extent of the infection became available. The regulations essentially prohibited the importation of Mexican limes and lemons into the United States and regulated the importation of other citrus fruit from uninfected areas of Mexico by requiring chlorine treatment of the fruit and restricting its geographic distribution within the United States.

Proposals to remove the geographical restrictions on the importation of other Mexican citrus have been met with a negative reaction by U.S. fruit growers. Some evidence of this can be found in the number of documents requested from APHIS under the Freedom of Information Act and Congressional inquiries.

To aid in determining whether or not the geographical restrictions could be safely lifted, the APHIS Administrator requested this internal control review of the Mexican quarantine system and the APHIS port of entry procedures in late October 1983.

### III. DEFINITION

An important element in determining the degree of risk to United States agriculture posed by a disease organism is the proper identification of the pathogen. In the case of CBCD, the identification was especially difficult and involved the efforts of Federal, university, and private scientists in the United States and Mexico. Correspondence which indicate these efforts is included in this report at Attachment A.

Special note should be made of the fact that the in Mexico the preferred terminology when referring to the disease is "Citrus Bacteriosis" or simply "Bacteriosis." The term canker in Spanish means cancer and, therefore, has an extremely negative impact on the marketability of the product.

### IV. SCOPE OF THE REVIEW

A team composed of Ed Stubbs, PPQ National Programs Planning Staff, and Arthur Wilson, AM Resource Management Systems and Evaluation Staff, traveled to Mexico City on October 30, 1983, where they were joined by Gordon Tween, PPQ, Area Director for Mexico. After meeting with Ed Ayers, PPQ Regional Director for Central America, and Mr. Moises Teiis, Director of Sanidad Vegetal, the team went to the State of Colima. In Tecoman, Colima, we met with Dr. Phillipe Romero, Exec-

utive Secretary of Sanidad Vegetal and other Mexican plant protection officials and were briefed on current quarantine measures and plans for eradication of the disease. The team also observed program activities at packing sheds and a major citrus nursery in the Tecoman area.

After observing quarantine activities in Colima, the team met in Montemorelos, Mexico, with representatives of the local citrus industry and observed procedures in packing sheds in the area.

The review was completed with discussion of quarantine procedures with PPQ port and domestic inspectors at the Port of Hidalgo, Texas.

## V. FINDINGS

### *A. Quarantine process*

The following are the significant observations and findings of the team with regard to the administration of the quarantine of the known infected areas:

1. Roadblocks (casetas) were established on the four highways leading from the quarantine zone. The roadblocks, which were in operation 24 hours a day 7 days a week, were manned by Sanidad Vegetal and Mexican military personnel. Vehicles were being stopped and searched and all Mexican limes confiscated and incinerated. (See Attachment B.)[1]

2. Air and rail traffic out of the State of Colima are being closely watched. The team observed Mexican limes being confiscated by inspectors at the Manzanillo Airport.

3. The quarantine system requires that growers execute a certificate of origin for all shipments of citrus delivered to the packers. The certificate is a numbered form issued by Sanidad Vegetal. (See Attachment C.)

4. Limes were being treated at the packing sheds with a solution of 200 ppm of chlorine during the packing process. In the sheds visited by the team the chlorine concentration was in excess of 800 ppm. Since the chlorine treatment is physically built into the equipment used in the packing process and the chlorine concentration is frequently monitored by Sanidad Vegetal inspectors, this aspect of the quarantine program would be difficult and expensive to circumvent.

5. Sanidad Vegetal issues a certificate authorizing movement of the packed fruit from the packing shed. The certificate indicates origin, destination, name of packer, and treatment applied. Both the certificate and the boxes are stamped to indicate the treatment and identity of the packer.

6. Mexican Government regulations prescribe specific penalties for violation of quarantine laws. The team was shown some evidence of penalties which have been assessed. The Executive Director of Sanidad Vegetal receives weekly reports of quarantine violations to ensure proper followup action.

### *B. Nursery stock*

APHIS PPQ officials have expressed concern that the most likely means of spreading the disease is through uncontrolled movement of nursery stock. At the time of this review, approximately 50 nurseries in the State of Colima were maintaining citrus stock. Sanidad Vegetal officials indicated that the areas of heavy infection have been greatly reduced as a result of treatment with metallic copper. The area of heaviest infection is in Tecoman where there are 19 operating nurseries.

The review team found that Sanidad Vegetal had established a program to control the distribution of nursery stock and were implementing a program to delimit and ultimately eliminate sources of diseased citrus nursery stock. The most significant of these measures were:

1. All nurseries in the regulated quarantine zone must apply to Sanidad Vegetal for a license to operate. The application must indicate the type of fruit to be raised. Sanidad Vegetal determines whether or not to issue the license on a case-by-case basis depending on a variety of factors. Each nursery to which a license is issued is assigned an identification number. The license also indicates the number of trees to be grown.

2. Citrus nurseries are inspected every 2 weeks by Sanidad Vegetal inspectors. The inspector compares the number of trees in the nursery with the number authorized in the license. If trees are missing, they must be accounted for. (See Attachment D)

3. The removal of trees from nurseries must be authorized by Sanidad Vegetal. The location for replanting must also be authorized. Upon receipt of a request to

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[1] Attachments B through J have been retained in the committee files.

move stock, Sanidad Vegetal inspects the nursery and the intended destination. Plants are not authorized to move to uninfected areas of Colima. A grower with both infected and uninfected stock is not permitted to move any of his stock. When Sanidad Vegetal is satisfied that the required conditions exist, a permit to move a designated number of trees is issued. (See Attachment E.) Trees to be moved are sprayed with metallic copper before being loaded on trucks.

4. Infected stock is sprayed with metallic copper every 15 days and uninfected stock is sprayed every 30 days. Diseased nursery stock with disease symptoms only on the leaves are defoliated. Stock with disease symptoms elsewhere on the plant are destroyed.

*C. Eradication/control measures*

Sanidad Vegetal officials advised the review team of the following eradication/control measures which are in progress or are planned:

1. The resources of CONAFRUT, a quasi-Mexican Government corporation, are no longer being devoted to developing new nursery stock. Those resources are now being directed at dealing with bacteriosis.

2. The team observed that approximately 700 plants in the Orosco nursery near Tecoman had been destroyed and that extensive efforts were in progress to clear debris and underbrush from the grove. Attempts were being made to keep the lower branches of trees from coming in contact with the ground.

3. Sanidad Vegetal officials indicated that their intent is to have all citrus nursery stock in the State of Colima destroyed by the end of calendar year 1983. Ultimately, it is intended that one nursery, controlled by Sanidad Vegetal, will provide all stock to growers.

4. To address the eradication program, Sanidad Vegetal has developed a gradient system with five levels to indicate the degree of infection in various growing areas. The State of Colima has been divided into four operational zones—each of which has been classified as to level of infection.

5. The equipment necessary to conduct an eradication campaign has been assembled and personnel have been allocated as follows: 28 Technicians (agronomists) for field work; 24 Inspectors assigned to packing sheds; 34 Inspectors assigned to roadblocks (casetas); and 2 Inspectors assigned to nurseries.

Field personnel are to be assigned responsibility for work in orchards in 1000 hectare areas.

6. A spray program was started in the most heavily infected areas in Tecoman in November 1983. The area covers approximately 4000 hectares. The program calls for the following spray schedule: 6 sprayings in the heavy infected zone; 6 sprayings in the adjacent buffer zone; 4 sprayings in a secondary buffer zone; 2 sprayings in a tertiary buffer zone.

7. Sanidad Vegetal officials report that they are beginning to assign inspectors to central markets throughout Mexico to check on the origin of fruit.

8. Sanidad Vegetal officials also indicated that they were having discussions with transport unions to gain better cooperation in quarantine enforcement.

*D. United States/Mexico border*

The review team discussed the quarantine program with PPQ officers at the Port of Hidalgo, Texas, which is the major point of entry into the United States of Mexican citrus. Generally, they appeared to be very knowledgeable of the requirements of the quarantine program. Essentially, the procedures followed at the port-of-entry are:

1. Incoming shipments must be accompanied by a properly executed phytosanitary certificate. (See Attachment F.)

2. PPQ officers check the shipment to see if all boxes are stamped with the prescribed limited distribution stamp (See Attachment G), and with a stamp indicating its origin in a citrus canker free zone (See Attachment H).

3. PPQ officers also stamp the accompanying waybill with the limited distribution stamp.

4. Domestic PPQ officers conduct regular inspections to insure that U.S. packers take cull fruit to approved landfills. Such fruit must be in plastic bags and be buried under at least 8 inches of dirt at the landfill. The officers reported to the team that there is no sure way to guarantee that all cull fruit is properly disposed of since some packers operate at night. However, all packers must sign a compliance agreement. (See Attachment I for stipulations included in the compliance agreements). Violation of the agreement could jeopardize the packers' business.

5. The Officers interviewed indicated that they had conducted followup on reports of smuggled Mexican limes being sold in the lower Rio Grande Valley of Texas. In those cases they were satisfied that the limes had been grown in the United States.

*E. Situation in Bacteriosis Free Zone*

In Montemorelos, the team met with officials of the Association of Mexican Citrus Packers (See Attachment J). This Association represents growers and packers of the nonregulated or free zone. The major concerns expressed by this group were:

1. That the protracted restrictions on the distribution of Persian limes and other citrus from the free zone could result in smuggling of fruit (Mexican limes) from the regulated zone into the free zone and into the United States. They believed that a widening differential in prices between Mexican and Persian limes would be the economic incentive for smuggling.
2. That the restrictions imposed a real danger that continued loss of markets would reduce the incentive for growers in the free zone to adequately treat their citrus and maintain their groves.
3. Finally, they expressed extreme concern about the proposed ban on the use of ethylene dibromide.

VI. CONCLUSIONS

Based on the observations and discussions substantively described above, the review team concluded that:

A. The quarantine measures which had been recomended by USDA were being substantially implemented.

B. The likelihood of bribery or collusion to circumvent the quarantine was minimal. No evidence was found that would support that suspicion.

C. The geographic limitations on the distribution of Mexican citrus product from areas outside the regulated zone were no longer necessary to protect U.S. citrus from exposure to bacteriosis.

## STATEMENT OF DOYLE CONNER, COMMISSIONER, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

Mr. CONNER. I'm not sure I formed the panel, so let me develop the panel right here on the scene.

The chairman of our Citrus Canker Advisory Council is here, Dr. Stall, from the University of Florida.

I would like Charles Poucher to come forward and Dr. Harold Bowman; would you come forward and form a panel with us.

Senator HAWKINS. I would like to welcome you, Commissioner Conner. Your name is synonymous with Florida agriculture.

I have heard much agreement that, not just in this room, but in other areas of the Government, that Doyle Conner and his department have done an excellent job in tracking the spread of this disease.

Mr. CONNER. I have a statement at this time.

Before you instruct me, I would like the information you gave to Assistant Secretary McMillan.

Senator HAWKINS. This is his statement.

Mr. CONNER. I would hand you my statement and make my remarks, if I may.

Thank you for serving with the States on the Agriculture Committee and think you for your continued concern with Florida agriculture problems or national agriculture problems with particular emphasis on Florida.

I will forego giving the formal reports, which I have prepared, and you may have it for the record and I think I have some additional copies.[1]

[1] See p. 62. for the prepared statement of Mr. Conner.

Senator HAWKINS. They are being distributed.

Mr. CONNER. At the outset, let me thank Secretary Block, who met with us at our national meeting in Oregon at the time citrus canker was identified to exist in the State of Florida.

Assistant Secretary McMillan, I met with him many, many times. I'm seeing him each week here in the State and I want to thank him for spending that much time here on this particular problem.

Harvey Ford has been on the program today. He has had some of his people on the scene, and for that, we are grateful.

Also, I want to thank some of our own people, Dr. Alfieri and Charles Poucher, the APHIS people.

The industry people deserve particular credit because, let us not forget that it was a nurseryman who called and said I have something in my nursery and I would like to have someone from the Department of Agriculture take a look at it because we haven't seen it around. Charles Collins, who's here this morning, called for Ward's Nursery, and I have a feeling if we have had a break, it's because perhaps we got an early start.

Government people can be involved and we have inspectors who make routine inspections, but if we expect to eradicate citrus canker, it's probably going to be largely because of the cooperation we are receiving from the industry.

We have had a number of meetings and each time we call those meetings with the video tapes and the slides and the lectures—I never knew that so many people could respond on such short notice and they are eager to learn. And we have, I feel, each grove being closely observed in this State right now.

I hope you noted the fact that it's not in commercial groves at this point. I might say that, in my judgment, it will be a miracle if it's not found there, but I think a miracle is entirely possible.

We have gone over a week without finding any infected nursery. You named the six and they have been destroyed. I assume there is now—how far along is it? It was 85 percent last week. Have we completed the nursery survey?

Mr. POUCHER. Ninety-nine percent.

Mr. CONNER. Nothing new has broken. So, this is good news and, as long as we finish monitoring those nurseries throughout the State, which is, of course, a serious threat, we will know much more than we know today. At the outbreak, we got in some respects of the commercial groves, and with a little luck, it could be the first—we have discovered the source of the initial infestation and this would be good. We have no reason to believe that there is another source infecting the industry at this time, because the subsequent breaks came from material programs, the initial nursery, so everything has fallen in place; the technicians have been able to follow the pattern without too many unknowns at this point.

Let me give you a summary of what is in the field as of this morning: 235 employees working on canker, adequate vehicles are in place; we have a shipment of new four-wheel drive vehicles for the personnel; our division of forestry made available some of their vehicles as well as some of their personnel; we have been offered vehicles from the private sector; we've been offered personnel from many sources—the State of California sent five pathologists to

Florida and they are here now being paid by the State of California, which we are only picking up their expenses. What are we recommending in the way of indemnities? I agree that we don't know the extent of the loss at this point. It would be my thought we should give serious consideration to indemnifying those nurseries who had total losses to some extent. I don't know to what extent, but to a considerable extent, I feel that those people should be put back in business as quickly as possible, because we still have the challenge to supply nursery stock for a seriously damaged industry as a result of the freeze and other situations.

QUARANTINES

I had prepared some information which was touched on in the last dozen or so years. State inspectors and Federal inspectors intercepted citrus canker at least 171 times and I'm not sure that this coincides with the information which was previously given, but, anyway, it's extensive.

Here in the State of Florida, we have 5,300 interceptions being made. Throughout the Nation, 960 times canker has been involved in the United States alone last year.

Now, many of us have frequently testified. I recognized that the world is screaming, that the transportation people are saying, "Don't interfere with our travelers"; USDA people are fully aware of the fact that sister-Federal agencies are saying, "Don't detain the travelers," but those who know something about the world of plant life and animal life and recognize that there are still areas of the world not infected with hoof-and-mouth disease, canker, and those dreaded things, that it's encumbent on us to try to protect those areas of the world, and I appreciate the notes that you have made asking the questions here today about how well are we protected, well, not enough.

We have canker. Tomorrow it could be hoof-and-mouth disease and we just have to, as a very small minority—3 percent of the people in this country are involved in producing agriculture—we have to ask for the cooperation of the general public and Government agencies and the Congress and the State legislators to understand that, if the United States is going to maintain the trust that they are maintaining in food production, we have enough problems without dealing with the dreaded diseases of the world. We have the capability in the United States that is unequaled anywhere else in the world to eradicate, but one of these days, we're going to find it impossible to get the job done. We have been fortunate. Fruit flys, animal disease, the great African snail was never eradicated in any other place in the world except where it had been established, except for here in the State of Florida.

But, I live with these people here, and the technicians they work with and the cooperative effort between the State and Federal Government, we're proud of that capability.

But I can tell you it has its limits. And one of these days, technology and good luck will just run out on some of these situations, so we must tighten up at the border.

Well, Bill McMillan, I hope that you'll teach those dogs to do something besides sit down when they encounter a problem. We've

been trying to teach our people to get up and go when there is something wrong. Let's teach them to wag their tail and smile; never to sit down on the job.

I mention this because I need to commend a lot of people who haven't been sitting down; Federal employees and State employees who are out there doing the battle are working day and night and they ought to be commended.

Harold Bowman's people, which I met in those staff meetings with the Fed people and with Mr. Poucher's people, they're working together, and I've never seen—both on the Medfly and on citrus canker, and I've never seen a more cooperative effort anywhere at any time. And I hope that it's taking place here with the Florida problems.

I will forgo any formal remarks and simply say, let us just continue to remind the public, as you so effectively pointed out, you can eat Florida citrus; there's no problem with it.

I think that the media has been careful because we are still getting calls; we are still hearing comments; we have even had some cures for citrus canker sent in. We had a person that called in and said, "I have cured my citrus canker. I used vitamins and no longer have citrus canker."

Well, these situations can just get out of proportion, and anytime you mention the subject, try to put it in perspective. I commend the Florida media and really the national media has been very thoughtful on this, too.

Those of us talking about it certainly are going to have to be mindful of the growers. We have asked production managers to look at every citrus tree in Florida. Just think how long it will take the inspectors to cover 760,000 acres of citrus. That will take a long time. The canker is spreading in the groves as a result of these insects and it will take the State and Federal inspectors a long time to have—to find all of them.

But, the response that I have seen, it appears that the production managers and the owners are going to be looking for it and they are showing up in excess of 1,000. Each time we call a meeting to try to give instructions, we have some video available on identification, we have a little color card that will show you what it looks like, and if you think you have it, let us know and we will all pray that you are wrong.

Senator, thank you for coming here and I would be glad to answer any questions.

Senator HAWKINS. Thank you. You have really pinpointed the unique cooperation that we have had between the Fed and the State Departments of Agriculture. I think it's been a model in this emergency situation. Maybe some other sister agencies after today will be such more cooperative with us at the border and at all of the airports.

We used dogs in the drug war and they are not beagles; they are a little different type of dog and we had had a hard time in several airports, to use these dogs, because the passengers were afraid of this type of dog. As you remember, these dogs sniffed the 2 tons of cocaine inside a sealed container in Miami; this goes to show you that these are special dogs and they are doing a wonderful job. Other countries are now asking for them because the United States

would rather they keep their drugs in their own country than shipping it here.

So these friendly beagles that help at the airport against contraband foods should not be turned down in my opinion by the airport managers because they disturb somebody's speed and haste in which way they go through our process here.

Mr. CONNER. If these people would look at the cost and the disruption of regular programs encountered with an emergency such as this, I think their attitude would be different.

Senator HAWKINS. I think we're getting their attention, and the purpose of this hearing is to show what it is costing.

It will be very helpful to them in their drug war and their cargo inspections, et cetera, and we're going to get their cooperation now and I will work toward closing the airports to introduction of this type of canker and other pests.

I read an article in the New York Times on September 19 which caused a lot of consternation and I was wondering if you could straighten this out for me.

It's entitled, "Florida Begins All-Out Battle To Save Citrus," and it discussed some of the problems you were having with the Governor's office, seeking emergency funds, and you are quoted as saying, "That some people don't understand the magnitude of this very serious problem. This is the most serious, most dreaded disease that can attack citrus and the Governor's office tells me to find funds from within my own budget. It's ridiculous."

[The article referred to by Senator Hawkins follows:]

[From the New York Times, Sept. 19, 1984]

## FLORIDA BEGINS ALL-OUT BATTLE TO SAVE CITRUS

### NEW CANKER OUTBREAKS HINT DISEASE SPREADS

(By Jon Nordheimer)

LAKELAND, FLA.—The Florida Agriculture Commissioner approved an emergency measure today empowering state agents to decide on the spot whether to burn citrus trees and destroy crops that they suspect of carrying a virulent disease.

In a second move to control the citrus canker that imperils the state's $2.5 billion orange and grapefruit industry, his department banned all shipping of uninspected citrus fruit within the state.

Scientists today reported two new outbreaks of canker, bringing the number of nurseries affected to five. But while evidence of the spread of the bacterial disease is building with each passing day, no one can say how far it has ranged or how many trees will have to be burned to halt its progress.

### DISEASE HIGHLY CONTAGIOUS

The highly contagious disease apparently attacks all varieties of oranges, grapefruits, tangerines, lemons and limes. Canker scars fruit with a yellowish-brownish lesion and can defoliate and kill trees. But scientists say it is harmless to people and animals.

The agriculture commissioner, Doyle Conner, reached in Oregon where he is attending a national meeting of state agricultural commissioners, said he was accepting the recommendations of a technical advisory committee that urged strong measures to deal with the crisis.

"Tough as it is to impose economic hardships on growers and nurserymen, we have to go ahead with these actions," he said in a telephone interview. Citrus production accounts for a large portion of the state's income from agriculture, its largest economic activity after tourism.

WIDE BURNING NOT CONTEMPLATED

Mr. Conner said that he did not contemplate widescale burning unless the disease threatened to "get out of hand."

Technically, the commissioner's approval could set in motion the destruction of any trees or seedlings received from the five contaminated nurseries, as well as all trees within a 125-foot radius. Beyond that, the next two rows of trees would be defoliated.

Mr. Conner said he would ask state residents to join in the effort to halt the spread of the disease. As a first step, he said, he planned to make a public appeal for off-terrain vehicles, including those used primarily for recreation, to help state and Federal agents reach groves in remote areas.

The ban on intrastate transportation of citrus follows by several days a Federal quarantine that prevents all uninspected citrus from leaving Florida.

Confirmed cases of citrus canker, in a mysterious new strain, have turned up in five nurseries scattered along a 100-mile path in the heart of the Florida Citrus Belt. Four of the cases were traced to shipment of plant stocks from a Polk County supply nursery, where canker was first detected last month.

Contamination is suspected at 11 other nurseries and citrus groves that bought seedlings and cuttings from that same nursery, state officials disclosed today. They said it might be several days before laboratory tests for canker were completed.

As the crisis mounted today, tension between Commissioner Conner and the office of Gov. Bob Graham became apparent.

In the telephone interview, the commissioner complained that the Governor was not releasing additional funds to his department to cover the costs of meeting the emergency.

"Some people don't understand the magnitude of this very serious problem," Mr. Conner said. "This is the most serious, the most dreaded disease that can attack citrus and the Governor's office tells me to find funds from within my own budget. It's ridiculous."

Charles Reede, deputy chief of staff for Governor Graham, disputed that assertion in a telephone interview.

"We've been busting our backsides to find extra money for the past week and by tomorrow the Agriculture Department will have an extra $2 million at its disposal to conduct the campaign against canker through Nov. 30," Mr. Reede said from Tallahassee.

Tom Herdon, the Florida budget director, said that the state was taking $534,000 from a fund created by agriculture inspection fees, and receiving $500,000 committed today by the Florida Citrus Commission for the fight. The combined total will be matched immediately by the Federal Government, he said.

MEETING ON FEDERAL AID

Commissioner Conner met Tuesday in Portland with Secretary of Agriculture John R. Block, who gave assurances that the Federal Government would help combat the canker outbreak in every possible way, the commissioner said. He also met with agriculture leaders from other citrus-producing states and briefed them on the problem, he added.

Meanwhile, Federal help poured into the state.

"This disease could devastate the industry unless quick action is taken," said Harvey L. Ford, Deputy Administrator of the Animal and Plant Health Inspection Service of the United States Department of Agriculture. Mr. Ford pressed last week by the industry's largest growers who discouraged the state from taking costly emergency steps before determining how far the canker had spread.

FOUR NEW CASES REPORTED

With four new cases reported in the last two days, the commissioners, who are appointed by the Governor and represent powerful citrus interests, today quickly endorsed the state's ban on intrastate transporting of uninspected fruit.

When some growers and citrus packers inquired if the plan could be amended to allow fruit from infected groves to be harvested before the trees were destroyed, they got a cold response that revealed the new mood of some commissioners.

"We are playing with fire if we assume we can move that fruit," said Ed Smoak, owner of hundreds of acres of groves in Highlands County. A 40-acre nursery adjacent to his groves has been identified as contaminated with canker and is in the process of being destroyed this week.

Experts are still attempting to analyze and label the strain of the canker that has suddenly appeared in Florida. It is unlike canker that has appeared in Mexico and Argentina in the last several years, Mr. Ford said.

"It appears to be a mutation of Type A, the most virulent of citrus cankers," he explained. "We have evidence that it attacks all varieties of citrus here. But we don't know where it came from, where it is, and how far it will spread."

He said there was not the slightest shred of evidence of industrial sabotage, a word that keeps cropping up among citrus growers who mutter darkly about the spontaneous nature of the contamination turning up in one of the state's largest nurseries.

Mr. CONNER. I think the Budget Director was thinking that trust funds could be tapped to solve a problem such as this, which is nothing new, of course, to ask the people to use trust funds; the trust funds are already designated for certain purposes.

If the problem was not of sufficient magnitude, it is possible to do small things, small projects within one's own agency. Since the Department of Citrus has made available five hundred and some thousand dollars on the program, we have scraped up all the money we can within our department.

What I was saying then and what I am saying now is that citrus canker cannot be conquered with that sort of approach. It's going to take broadening out and a direct attack on citrus canker with personnel, with funds, with equipment in order to get the job done so it will take both funds from the Federal Government to fund their 50 percent and additional funds outside of the regular departments in Florida to fund our 50 percent. We don't know how much it will cost, but——

Senator HAWKINS. Where are you getting your money today for this?

Mr. CONNER. Trust funds, then there was an emergency fund with some limited money in it and that was about $5 million total, Federal and State.

What is that figure now? About the same, I presume, but the legislature will have to take a look.

Unless we're lucky—and we've gone 6 or 7 days now—well, 9 days now without finding anything, it's possible that we can go back to just a monitoring program and that is because of the dormancy of the bacteria and the possibility of an outbreak here. If we get the eradication behind us, then we'll just monitor and look for the bacteria.

Senator HAWKINS. Do you feel that the State has proper procedures in place to handle funding necessary for an emergency such as we had?

Mr. CONNER. Well, you know, I think that Florida has the capability. Assistance Secretary McMillan said that Virginia and Pennsylvania did not have, but if we look after our business better than Virginia and Pennsylvania, we shouldn't be penalized for it. And for us to say that we don't have a capability and, therefore, the feds should do it, our attitude is, "We have a problem and it is in Florida; it's a national problem and we will attack it on a 50–50 basis." As far as the control and eradication are concerned, and as far as the indemnity, I don't think that should be based on the ability to pay. I think it should be based on treating all States alike and all programs, if possible, alike, and Florida should be treated the same as the other States.

So I hope that they do take a look at the restitution that might be made later. As far as attacking the problem now, I think legislature has exressed themselves clearly enough to say, "You fight citrus canker and we'll keep the resources there." I don't think we have the reputation for squandering funds. I think the legislature knows that; they know it very well. So I'm saying they will back up whatever is necessary to eradicate canker and I further am saying that we're going to eradicate it. It took 20 years before. I want to see this brought to a conclusion to a conclusion soon. If it takes 20 years, I won't get to see it. I think we're going to be successful on our eradication, even though we're using the same techniques that we were using in 1912. This disappoints me, but we still are.

Senator HAWKINS. That is also my concern.

Mr. CONNER. We are still getting rid of it because I feel that your detectural program must be a lot better than our monitoring program, and that was many years ago.

Senator HAWKINS. How can you inspect and certify nurseries as disease-free?

Mr. CONNER. It's annual. It's under our normal nursery certification program.

Senator HAWKINS. You mean, during times when we have no Medfly, no citrus canker?

Mr. POUCHER. That is correct.

Senator HAWKINS. With a country like Mexico that has citrus canker, do you consider Mexico's canker to be a threat to the United States, to Florida, and do we monitor their situation?

Mr. CONNER. There would be an alert sent out. They would be alerted to whatever threats might exist, and in their training programs, it would include the new possibilities that might exist here in Florida.

Senator HAWKINS. How long do you believe that Ward's Nursery was infested before citrus canker was discovered?

Mr. CONNER. Based on the rate of the spread, we detected it on one day and then we started our sampling and our laboratory tests, and within a matter of days, citrus canker had spread and—I don't know, but I was told that it had spread to all quadrants of the nursery and someone who was in the nursery—I have not been to any of the nurseries because they are quarantined, and we were asking people to stay out of there, but our technicians have been there, but how rapidly—I think you told me it was very rapid, what was it?

Dr. DUCHARME. Well, the earliest time that material had left Ward's that was infected was January 15, 1984 that we're sure of. This was their particular time and the committee decided to go back from that another 4 months to take care of any latent period that might have occurred prior to that. So, we assumed that September 15, 1983, might be a good time to indicate that it's been present in that nursery.

Mr. CONNER. Well, the question that we also dealt with was, when did we detect it and the detection was in early September and hardly noticeable; isn't that right?

Dr. DUCHARME. Right.

Mr. CONNER. The manager of the nursery called us and just had some buds that were not taking and it was hardly visible when the

nursery was first visited, wasn't it? Then, in a matter of a few days, it was visible throughout the nursery.

So, the spread and the break apparently was very rapid, even though the bacteria could have been there for some time and, I guess, it could have been dormant over the winter, the previous winter——

Dr. DUCHARME. The way this works is, the bacteria starts in very small regions and is not visible. It has to reach a certain size before you would notice it by walking through and looking at it. Also, although the bacteria could have been there since September of 1983, I think the detection of it was at its probably earliest time in August.

Mr. CONNER. Then, after it started, as I said, after it started appearing, it spread very rapidly and throughout the entire nursery, so it is and has been pointed out to be very, very virulent.

Senator HAWKINS. Like chickenpox in a children's nursery?

How many nurseries are there in Florida in addition to Ward's?

Mr. POUCHER. 157 commercial citrus nurseries. We have other smaller nurseries, mostly home-use type nurseries.

Senator HAWKINS. And they have all been inspected by now, I believe?

Mr. POUCHER. All that we know about.

Senator HAWKINS. How long will the State have to follow extraordinary precautions before we know that the citrus canker has been eliminated?

Mr. POUCHER. We're not sure. We want to reinspect all of the resets that have been moved out in grove plantings from these inspected nurseries, but we think we're talking about 60, 90 days, but that's based upon what we find out from today.

Senator HAWKINS. How many of this State's citrus groves have been certified to be canker free and are able to ship fruit?

Mr. POUCHER. I believe through last Friday, we had 17 groves. Percentagewise, that would be a very small percent; 3 to 4 percent maybe at the most.

Senator HAWKINS. How long will it take to certify the rest of the groves?

Mr. POUCHER. Well, certify them as a particular fruit ready for harvesting. Half of production would not be ready for harvesting before sometime after Christmas, so we're not looking at those now. What we're looking at now is grapefruit and some specialized groups like tangerines and tangelos. I think we can reasonably keep up with the requests.

Mr. CONNOR. Well, let me caution you, from a regulatory point of view, we hope not to have a backlog, but if it means sacrificing the chance of spreading canker, then we would rather train new people and make sure that our monitoring is, continues to be adequate.

When we get into the full run of the season, that is no reason to let up on our canker surveillance and I hope that we all understand that, and I hope that our own people realize what is expected of them there and I think they do.

Senator HAWKINS. I discussed this with Secretary Block last week and wanted to ask you, do you have sufficient resources to hire and train these additional people to move this program along?

Mr. CONNOR. We've got 25 OPS people and 25 officers—I guess it's going to take a full run of the harvest to indicate whether we have sufficient people or not.

Would you care to venture or predict what is going to happen when we get into full harvest?

Mr. POUCHER. After Christmas, when the main bulk of harvesting gets into full speed, concentrated plants begin to move, we're going to have at least 100 inspectors in the field to keep up with it, which is more than we have got right now. I do think we have the capability.

The USDA, I think, has 17 more days and then we're putting on 25 OPS people and we can add more OPS people and train them——

Senator HAWKINS. Tell the public what OPS means?

Mr. POUCHER. They are employees. They don't get any fringe benefits. They are paid on a day-to-day basis.

If we are hiring a week employees, we can get rid of them the same day we pick them.

Mr. CONNOR. If they are good, we train them.

Senator HAWKINS. You train them?

Mr CONNOR. We have what we hope is adequate training to eradicate citrus canker.

Senator HAWKINS. If I were a grove owner, I would be scared to death that my fruit would come up ripe and I couldn't pick it.

What can you tell, not just a tangerine grower, but what can you tell those who are tangerine, tangelo grove owners today?

Mr. POUCHER. Patience; give us a few more days. We can work it out. We're taking care of them right now, but like the commissioner said, we need to be sure that we have nurseries and resets under control, but I don't think that the tangerine growers would have any major problems.

Mr. CONNOR. The groves we are recertifying because, a week ago last Saturday, we had another nursery break and that changed our protocol a bit. The groves we are certifying now, while we are completing the nursery monitoring program, are groves without resets, then we send the inspector in to look for citrus canker and also confirm that they have no resets because we feel if citrus canker shows up in the commercial groves, it will come through resets from an infected nursery.

Senator HAWKINS. So you feel you have sufficient resources to hire and train additional people for inspection and certification?

Mr. POUCHER. I don't worry about the money too much. I let my boss worry about that. I try to get on with the eradication program.

But, I feel, myself, my boss is going to see if we have got the money to do the job, so if I need 50 more personnel in the field, I will let him know and I think he'll come up with the money some way or another.

Senator HAWKINS. Secretary Block told me he is ready to do his share on the Federal side. Secretary Block told me that you should be able to get the personnel as fast as you need them.

Mr. CONNER [to Richard Fox]. Richard, we're budgeted through this fiscal year with a budget that we've been talking about, and does that include 100 additional to take care of the certification when we get into full harvest?

Mr. Fox. That is a difficult question to answer. We certainly have the funds to get started and hire OPS personnel, at least 25 to investigate to take care of these personnel, and as the program expands, we will just have to address some of these issues as they arise.

Mr. CONNER. Well, I can almost assure you that we can get up to the convening of the legislature with what we have in place. If not, we're going to be talking to the legislature when they convene in November.

Senator HAWKINS. That's my question: Do you have sufficient funds from the State to do the job? Where is the State going to get the money?

Mr. CONNER. I think there is going to have to be some participation from general revenue that is not appropriated now because, as I said before, trust funds cannot handle something of that magnitude.

Senator HAWKINS. Does that take legislative approval or can the Governor give you funding on an emergency basis?

Mr. CONNER. We have very limited emergency fund reserves, but that has all been allocated now. It is a very small amount.

Senator HAWKINS. How much?

Mr. CONNER. How much was left over. See, we've had the Medfly, too.

Senator HAWKINS. I know. We just go from one problem to the other.

Mr. Fox. We still have that $50 million.

Senator HAWKINS. What we call the "rainy-day fund," and it is certainly raining.

[To Senator Langley.] This is Senator Langley from the Florida Legislature speaking from the audience.

Mr. POUCHER. I may say also, most of our employees, at least 100 of them working on citrus canker, are being paid from other budgets.

Senator HAWKINS. Whose budget?

Mr. POUCHER. The Department of Agriculture.

Senator HAWKINS. Those are the Department of Agriculture's funds?

Mr. POUCHER. Yes.

Senator HAWKINS. I am asking about general revenue funds, and up to this date, I don't think you've used general revenue funds.

Mr. POUCHER. Well, we have had some emergency funds, but very small amounts, because we have used a good portion of the agricultual emergency fund for Medfly.

There is a little bit left and I presume the rest of that has been used. If they tap the rainy-day fund, then that is a different thing. I think the legislature should take a look at it. We will report it to the legislature when they convene in November. They should take a look at where we are and what they might expect, and I feel that there are some emergencies and that they will meet them, but I think by April, it will be necessary to make some allocations to this program and I don't know how much.

Senator HAWKINS. So you're telling me that the Governor doesn't have to provide more than that small emergency fund money?

Mr. CONNER. Well, I think the rainy-day fund could be allocated to—I don't know how much of it is committed to other programs.

[To Mr. Fox.] Richard, if you could check.

Mr. LANGLEY. We have a $16 million surplus already in this fiscal year which runs that up to about $66 million, which is totally uncommitted.

It's their rainy-day fund, but it has to be budgeted through the legislative process.

Mr. CONNER. But, I think if we run into a very serious problem, we could ask this to be done in November. If we can get by until the regular session, then we will wait until April to consider it and we hope that with the allocations we have now, we can get at least to April and I think perhaps that we can.

Senator HAWKINS. Is there any reason to believe that there are growers who are not reporting sitings due to fear of losing money?

Mr. CONNER. The cooperation and the sacrifice of the industry, I wish the world to know about it.

If there has ever been an example set, when I talked to Mr. Ward and when I first heard the report what it might be, I called Mr. Ward and I said, "Mr. Ward, it looks bad."

And he said, "I've only one request. Don't destroy any grove until you know it's citrus canker. When you confirm that and you confirm it's citrus canker, I know what I have to do."

When it was confirmed, his response was, he said, "Come and destroy my property," his entire nursery.

This is true with all six. As far as I know, the problem is developing with one of the very large nurseries and I hope it can be worked out to receive material from Ward's nursery wherein some of the owners are nonagricultural people—they're just pure investors—the person who is operating the nursery understands the problem, and I think he would say, "I would prefer to comply."

I think some of his investors are saying we're in the business for profit and we're not necessarily citrus growers. We just sell to citrus people. And litigation is possible there.

I think it will be sad if that comes to pass, but it may.

Senator HAWKINS. What is the State's responsibility in assisting effective nurserymen and potentially assisting growers for their losses due to citrus canker?

Mr. CONNER. I would recommend that the nursery, the six nurseries that we're talking about, that a substantial portion of their losses be reimbursed. From that point, we really don't know who will sustain losses and I think the attitude of the industry will be, if they lose some resets and their losses are not enormous, that they will absorb those losses, that they want to stamp out citrus canker, and if it requires the destruction of resets, they're willing to do that. I think most of them are willing to do it, to save the industry from additional losses, but those nurserymen who are experienced and who have had total losses need to be back in business; they need to be supplying stock for the industry; they are good purveyors; they know what they are doing.

It's unfortunate that they have been affected with citrus canker, and their cooperation, as far as I have been able to determine, and I have talked to them, has been splendid.

Senator HAWKINS. What have we learned from this experience from the State's viewpoint, from the Federal Government's viewpoint? Do you believe that there are some changes that could be made that would prevent this from happening in the future?

Mr. CONNER. We have learned that we are vulnerable, I don't think there is any doubt about that.

We have learned that the trend taking place in this country was not well thought out from a regulatory standpoint. It's been mostly economics; don't inconvenience people, take a chance, and I guess someone did take a chance and we lost.

We lost on the Medfly in June; we lost on citrus canker in September, and it will continue to get worse until we have more cooperation from other agencies and other people and I would like to see the transportation and traveling people, themselves, recognize that a healthy environment and a plentiful food stock has been one of the things to be appreciated. This applies to those who have crossed borders, and anybody who does that in these modern days and times should be mindful of the fact that his innocence is the main thing at this time.

It can be a multimillion-dollar mistake and that's what has happened. Citrus canker just didn't take off and leave someplace in the world and decide to vacation in Florida. It hitchhiked here and most likely it was a person who brought it here and I hope that person was not mindful of what they were doing, not aware of what they were doing, but in the future, everyone crossing borders, not just the United States—there are countries who don't want some of these things that we have and I respect them for that and I am happy to be a firm believer and supporter of strict quarantine; it's cheaper than the other way—but we are experiencing some of the costs and people aren't even able to buy fruit, fresh fruit in Florida and we are in the major citrus-producing State or area in the world. But because someone has brought us this problems, you will not be able to buy fresh fruit in Florida, grown in Florida, because no citrus-producing States can receive fresh fruit from a canker area and Florida is a citrus-producing State and we have citrus canker.

So I hope that we can make Congress, regulatory agencies, the public, the carriers, the travel agencies aware that one of the prime responsibilities in this world is to protect our source of food and fiber and it's constantly threatened by weather, by effects of God and all sorts, and then people can add to that dilemma. So, your efforts here and later will be very helpful.

Senator HAWKINS. Thank you, Commissioner Conner. Dr. Stall, you currently chair the Citrus Canker Technical Advisory Committee?

Dr. STALL. Yes.

Senator HAWKINS. The Institute of Food and Agriculture Science has been conducting research on this project offshore for several years.

Would you relate to this group the nature of the research that has been going on offshore, the locations, where the research has been conducted, the people that have been involved and interaction with other agencies, if appropriate, and how the results have been

useful in handling this citrus canker problem that we have in Florida now?

**STATEMENT OF DR. ROBERT STALL, CHAIRMAN, CITRUS CANKER TECHNICAL ADVISORY COMMITTEE**

Dr. STALL. That is correct. We have been conducting research in Argentina for the last several years. In mid-1976, there was concern about citrus canker increasing over the world and a technical workshop was held in Washington and initiated by APHIS. During that workshop, a working group was created to become more knowledgeable in citrus canker.

The University of Florida took this seriously and decided to try to become more knowledgeable in citrus canker because we thought we were the most vulnerable of all of the States in the United States.

Dr. DuCharme, Dr. Seymour, and myself made a trip to Argentina in 1978, to observe the epidemic that was in progress there, and to try to see if we could come to some sort of agreement with Argentina to conduct research in some location there on citrus canker.

The agreement was worked out with the Government of Argentina and a project was initiated at the city of Bella Vista, Corrientes Province, where there was a small research station located in the center of a citrus-growing area which had been infested with canker.

I was the first one to go to Argentina to study citrus canker at that location. I spent a year there working with the disease. We learned a lot in that year of work.

We looked at the population dynamics of the bacterium in lesions on leaves. We determined the distance that the canker bacteria could be spread in rainstorms that occurred in Argentina. We also looked at how long the bacteria would survive on plants as well as noncitrus types of plants. We looked at the relative susceptibility of all types of citrus to citrus canker. We also did a lot of work with the epidemiology of the disease in the sense that we had a unique situation to look at, how fast the disease spread through blocks of citrus of different susceptibilities, and this has all been very valuable to us in this eradication program. Without this background, we would be at a loss as how to handle the questions that have arisen in this infestation and to advise the committee.

I was followed by Dr. John Miller, who is employed by the Division of Plant Industry of Commissioner Conner's group. He spent 6 months in Argentina continuing the program. Then, Dr. Devon Zagory, who was there for 2 years, followed. This concluded the project in Argentina which lasted from 1978 to about 1983.

It's been a very valuable time for us and I have a list here of about seven publications we have written in the last 4 years, and I would like to submit it for your education on citrus canker.

Senator HAWKINS. I appreciate that. How was the cooperation of the Argentinians?

Dr. STALL. We had a lot of cooperation from the Argentinian people at that particular time, even when there was a military government there, and they helped us in every way possible on this.

Senator HAWKINS. What about Brazil's attitude, since this is such a huge country with a great deal of citrus?

Dr. STALL. I have not worked in Brazil, but we've been in contact with Dr. Victoria Rossetti, who is in Sao Paulo. She has been very active in citrus canker research, and the information that we obtained in Argentina has been useful, I think, to them, too. Eradication of citrus canker in Sao Paulo occurred in 1979 and 1980, when canker got into the big citrus-growing areas. The University of Florida did send a representative to Brazil to observe what they were doing in the eradication of canker when it came into their large citrus-growing area. I think the cooperation has been excellent with Brazil today, also.

Senator HAWKINS. Do they still have citrus canker today?

Dr. STALL. They have canker in certain provinces in Brazil, but the province of Sao Paulo, which is the largest citrus-producing area, does not have canker; it's relatively free at this time.

They are monitoring the canker movement within Brazil and they have regulations which allow citrus to move within Sao Paulo State which is the largest citrus growing State and rivals Florida. Sao Paulo, for all practical purposes, is free of canker and they are monitoring it.

Senator HAWKINS. We know that canker is in Brazil.

Are there any other States other than the big citrus-producing States that have canker? They don't allow shipment between canker-infested States; is that right?

Dr. STALL. That's my understanding.

Senator HAWKINS. And $1 million has been appropriated to the University of Florida for canker research, as you know, and can you share with us how you intend to spend the money?

Dr. STALL. Well, there are a lot of needs associated with this eradication program that need to be answered.

We have received $1 million for this type of research. One of the things that is of interest, that is necessary, is disease monitoring in the future. How do we find disease when it occurs; how can we best find it quickly. Some work has been done on infrared photography which can be useful in monitoring of the disease.

There is also work needed on better diagnostic tests and this will be researched. There is also a need to upgrade and really develop containment for this disease. If we are successful at eradication, and I have high hopes that we will be successful in the eradication program, we would need to work with these canker bacteria in a containment facility. This is a must, I think, for future research that will be conducted in Florida.

There is a need for testing of bactericides, also. Again, we're very hopeful and very optimistic that the disease will be eradicated, but in case this doesn't happen, and it does become widespread, then we will need to look at the control aspect test bactericides. This is part of the research plan.

There are also other things that need to be done, such as looking at the chlorine-dip treatment of fruit. There is a need to look at more efficient ways of treating fruit with chlorine. There is also a need to find ways of treating soil which has become contaminated so the citrus growers can come back sooner than a 2-year waiting period that we have suggested.

There are many types of treatments that can be used in decontamination processes, such as with cars, trucks, tractors, harvesting equipment, and so forth. These need to be researched to see if there are things that are better than we have at this time.

Senator HAWKINS. What programs do APHIS or the State have for informing growers about citrus canker?

Dr. STALL. We have an extension program with the University of Florida and the extension role is one of disseminating information.

I know Commissioner Conner had some meetings which explained to the growers the results and the regulations that have been developed in the eradication program, but the extension services also participated in meetings in which these rules have been announced. The information has been sent to the county agents with electronic mail systems and the extension service has been effective in disseminating these rules and regulations in the eradication program to the local media and press.

They have had meetings with the county agents to inform the growers on the symptoms of canker. They have developed slides and a video tape of symptoms, so the growers and production managers can be more efficient in recognizing canker as it might appear.

There is also an extension specialist assigned full time to the Division of Plant Industry's Headquarters to keep the extension service up to date. Information is being disseminated very well and very rapidly to the county agents and then to growers.

Senator HAWKINS. Did you have a program, an ongoing program before you discovered the canker or is all of this after we discovered the canker?

Dr. STALL. No. As part of the technical workshop, that we had plant pathologists from citrus-growing States, and U.S. Department of Agriculture, and APHIS developed an action plan in case canker would come into the United States. This plan is really the basis for the eradication program that we are under now.

The technical advisory committee that Commissioner Conner appointed really is concerned with variations of this action plan. This action plan was again developed by APHIS and was in cooperation with the State plant pathologists that had experience with the citrus canker, so we did have in place an instrument, the action plan, in case canker did come in and that has been helpful to us to take care of the things that we wouldn't have had time to develop otherwise.

Senator HAWKINS. Can you explain to the public—I guess they call it the pipeline rule, the shipment of fruit within the State.

Dr. STALL. I think I should defer to Commissioner Conner to comment about that.

Mr. CONNER. We were just moving into the harvest season when canker was discovered, some fruit may have been harvested, but we set up a protocol that permitted fruit to be harvested by certifying under inspection. Well, while this was going on, another nursery broke and we had not finished our nursery monitoring program surveys, so we stopped all certification, voided all of the certifications, but fruit were in the pipeline. We came back with new protocol, which we have already described, that we are authorizing harvest by growers were there were no resets, we are now 99 percent

finished with the nurseries, but until we get all of this behind us, then we feel we should be super cautious.

So October 7 is the deadline for that fruit to clear out of the trade channels; is that correct?

Mr. POUCHER. That is correct.

Senator HAWKINS. The trade channel, meaning that if the public has fresh fruit already purchased for——

Mr. CONNER [continuing]. For public purchase.

Senator HAWKINS [continuing]. For public purchase, it can go through, but it can't go to a roadside stand?

Mr. CONNER. Well, how are you handling—are you limiting where this fruit can go if it's in the pipeline? Are there any restrictions on where that fruit can go?

Mr. POUCHER. Retail outlets.

Mr. CONNER. Which ones?

Mr. POUCHER. Fruit stands, if they are in business and buying it from owners where it has been treated, have been inspected, and it came from a negative grove and no resets——

Senator HAWKINS. No resets? We can't here; would you repeat that?

Mr. CONNER. The fresh fruit, which has been harvested under the auspices of the two regulations was tightened up after the last nursery broke. The fruit that was in the pipeline at that time had been legally harvested, treated at a packing house with the chlorine solution, we can go ahead and clear the channels and there are apparently no restrictions on that fruit, but as soon as that has cleared the pipeline, then the USDA has suggested and the technical advisory committee has adopted a rule parallel to the Federal quarantine which says that fresh fruit cannot be offered for sale from Florida to a citrus-producing State which would include California, Arizona, Texas, Louisiana, as well as Puerto Rico and Hawaii.

They said Florida is a citrus-producing State. We don't have jurisdiction over interstate activities but we recommend that you adopt the same regulations we have. The advisory committee did just that in their recommendation to me, and I approved the same results and regulations provided by the Federal quarantine and their efforts——

Senator HAWKINS. So, Florida fruit which is safe to eat, which we have determined it is, will be sold in Georgia, but not in Texas or the State of California and the States you mentioned?

Mr. CONNER. In any citrus-producing area including the State of Florida, which works the hardship on us here because we cannot supply our own market, but if California had citrus canker, California fruit would not be coming into any citrus-producing State under a similar regulation.

Senator HAWKINS. So, Floridians will be looking forward in the near future to fruit being sold in Florida that was not produced in Florida?

Mr. CONNER. Processed fruit in Florida will be on the market in abundance and can be temporarily substituted for fresh fruit because processed Florida citrus products are not prohibited in the market where citrus is growing, although these States I mentioned can buy Florida processed, but not fresh.

Senator HAWKINS. But not fresh?

Mr. CONNER. Right.

Senator HAWKINS. Thank you.

Dr. Stall, if a grove or nurseryman has questions about canker, where should they call for information?

Dr. STALL. Well, they can call two places. First of all, they can call the Division of Plant Industry to get the rules and regulations as they apply immediately and they can also call their local county agents and extension service agencies within the University of Florida and this information is disseminated to them on a daily basis and they are quite up-to-date on this information.

Senator HAWKINS. Do you have a hotline that gives hourly information if they were to dial a number? Could we get that number?

Mr. CONNER. There is a hotline. I don't know the number.

Richard, do you have it?

Mr. GASKELLA. It has just been put in place and the number has not been released yet.

Senator HAWKINS. Can you provide us with the number?

Mr. GASKELLA. We will make these numbers available as soon as they are in place.

Senator HAWKINS. When will that be?

Mr. GASKELLA. Very soon.

Senator HAWKINS. Dr. Stall, I believe that's all the questions I have for you. We appreciate the role that you have been playing in this situation and we look forward to a future announcement that you have found a cure for canker.

Dr. STALL. I would love to do that very much.

Senator HAWKINS. We thank this panel for their participation and we will call the third panel.

I would like to introduce the third panel. It consists of Mygnon Evans, vice president, staff legal counsel for Florida Citrus Mutual; Harold E. Kendall, Jr., president, South Florida Lime Growers Association, and Charles Collins, who is the general manager of Ward's Nursery.

We have heard from the Federal and State government as far as actions against citrus canker. Now, we have representatives of the citrus industry who know better the effects of the canker in the industry.

I would like to thank you for taking your time in your very busy schedules for coming here and speaking and I hope that the Federal and State officials will listen closely to your testimony.

We would ask that if you do have written testimony, that you submit it for the record and confine your oral remarks to 5 minutes, please.

And we will first call Ms. Evans.

## STATEMENT OF MYGNON EVANS, VICE PRESIDENT, STAFF LEGAL COUNSEL, FLORIDA CITRUS MUTUAL

Ms. EVANS. Senator Hawkins, Florida Citrus Mutual would like to offer comments on three canker-related topics this morning. As representatives of Florida citrus growers, we particularly appreciate your concern with this problem that threatens to devastate our industry.

Taking note of the recent decision and announcement by Assistant Secretary of Agriculture, Mr. McMillan, regarding a complete review of the system of regulations by APHIS, we endorse that proposal, that announcement; we support it and we think it's entirely appropriate that there be a review at this time to establish regulations that are clearly biologically sound and which are also strictly enforceable. We believe that the recent invasion of citrus canker into this State underlines the need for continued vigilance. The fact is that the survival of a billion-dollar industry is on the line and that there are many pathogens and vectors out there in other parts of the world which threaten to devastate not only the citrus industry, but our agriculture business not only in Florida, but in other parts of the United States. We urge the continued vigilance and strict enforcement of regulations and rules designed to protect American farmers, including the Florida citrus growers.

Second, we take note of the recent action by the U.S. Senate approving the appropriation of a million dollars for reseach for the battle against canker in this State. We appreciate that support. We sincerely hope that the House of Representatives will be equally supportive of this plan.

We take note also that the battle against canker in this State is not going to be cheap, but as I said before, this is a billion dollar industry, and it's survival is at stake. If the price of victory is costly, the price of defeat is unthinkable.

And, third, we would ask to seek the support of the U.S. Senate, the Senate Agriculture Committee, particularly, the U.S. Department of Agriculture, and its research arm, the ARS, to prioritize research leading to a cure for citrus canker.

We have noted a shortage of research in this vital area over a period now of three or four decades and yet, during that same timeframe, there have been enormous advances in medical science and medical research. It is entirely possible that a cure for canker is unidentified, but on the shelves already, just beyond our reach at this moment. We urge these particular agencies of the Government to prioritize research, to seek a cure and a timely cure for this dreaded disease.

As I said before, that research also carries a high pricetag, but the cost of defeat in this situation would be beyond our wildest expectations.

Senator HAWKINS. Thank you.

Ms. EVANS. I will be glad to answer any questions.

Senator HAWKINS. I agree with all of the comments that you made, Ms. Evans.

What is the Florida Citrus Mutual advising its growers to do to monitor their groves and limit the spread of canker?

Ms. EVANS. Well, we are distributing information regarding canker and asking—certainly telling our grower members and there are slightly over 13,000 members of Florida Citrus Mutual to notify the Florida Department of Agriculture for the first sign of any symptoms of canker in a grove.

Senator HAWKINS. Do you believe that the newspapers, radios, and the television are premature in their alarming statements of the danger of citrus canker?

Ms. EVANS. I believe, for the most part, the media has been very supportive. It's very important for this industry to get widespread public attention of the fact that the disease is present and that we must be on the alert to find it.

I think there was probably some zealous reporter going into the groves that were quarantined and, of course, to spread the disease——

Senator HAWKINS. I believe you were in the room when we discussed the solution to the problem of taking care of the economic losses of nurserymen and growers.

Is there any discussion among your industry of what to do about the economic losses?

Ms. EVANS. You're talking about positive indemnification?

Senator HAWKINS. Yes.

Ms. EVANS. There is a lot of discussion, as you well might imagine. Some nurserymen already have lost their livelihoods. Certainly there is the threat that individual growers may lose their livelihoods also. It certainly is a critical problem with us.

Florida Citrus Mutual does not have a position of compensation at this time. It is a subject of discussion in an attempt, if you will, to balance the equities.

There is a need for some type of compensation. At the same time, we realize that the Government may be a deep pocket, but it's not an unlimited pocket.

We will attempt to establish an official position on that particular question in the near future.

Senator HAWKINS. From an industry standpoint, citrus is not a subsidized crop, such as corn?

Ms. EVANS. That's correct.

Senator HAWKINS. And you are unique in that you operate on a free market and hopefully a fair market.

We have had a lot of problems with the fairness doctrine as far as criteria is concerned, but as long as I've been on the Agriculture Committee, I've learned that it behooves the citrus industry to help us with the solution. Otherwise, you might get a Government solution which may not be the best—that's why we are looking for your help.

Ms. EVANS. I will interject that, in view of the position of the U.S. Department of Agriculture in the poultry cases, there has been a problem of equity and certainly Florida should not be penalized by the fact that we have a State government that is prepared to respond immediately, that we don't have to resort to a Federal solution.

Senator HAWKINS. That's true. We would like the public to know it's not a subsidized industry. It's a form of agriculture that is unique.

Ms. EVANS. It certainly is not subsidized.

Senator HAWKINS. And it stands on its own and we're very proud of that.

If the canker doesn't spread beyond the six nurseries, what impact will that problem, coupled with the freezes, have on citrus production; what are you looking at in numbers?

Ms. EVANS. I didn't bring any numbers with me.

Senator HAWKINS. Would you provide that for the record?

Ms. EVANS. I'll be glad to.

Senator HAWKINS. Do you know approximately what percentage of your growers belong to agricultural co-ops?

Ms. EVANS. I don't have those numbers.

Senator HAWKINS. Would you provide that for the record, please?

Ms. EVANS. Yes.

Senator HAWKINS. I understand there are about 40 percent of our Nation's juice-producing industry controlled now by three large corporations and I would like to know, for the record, please, how are your growers being affected by the trend toward corporate domination of the processing industry?

Ms. EVANS. Again, I did not come prepared to answer that.

Senator HAWKINS. Do you know if any small processor in Florida has been able to institute themselves the way the giant corporations do?

Ms. EVANS. In what respect?

Senator HAWKINS. I may provide you with other questions and if you will, from the Florida Citrus Mutual's viewpoint, get them answered? [1]

Ms. EVANS. You will have written questions?

Senator HAWKINS. Possibly if we don't have all the answers presented to the committee during the remainder of this hearing.

Ms. EVANS. Thank you.

Senator HAWKINS. Thank you very much. We appreciate your participation.

Next is Harold Kendall, president, South Florida Lime Growers Association.

## STATEMENT OF HAROLD E. KENDALL, JR., PRESIDENT, SOUTH FLORIDA LIME GROWERS ASSOCIATION

Mr. KENDALL. My name is Harold Kendall, Jr. I am president of the South Florida Lime Growers Association of Goulds, FL. I am here today to speak as a director of the Florida Fruit and Vegetable Association.

The association represents a substantial majority of fresh fruits and vegetables shipped out of the State of Florida.

I am also speaking as a lime grower.

Wearing either hat, I can assure you that I am most concerned about the situation which can only be described as a disaster which is likely to get worse before it gets better.

My father and I have been engaged personally in the planting and production of limes and as well as harvesting and sales of limes for the past 50 years. South Florida Growers Association, composed of 300 members, produces and sells approximately 45 percent of the limes grown in Florida. The lime production area in Dade County extends southward from North Kendall Drive, is bounded on the west and south by the Everglades National Park and on the east by the Biscayne Bay National Park and residential areas. This area is approximately 15 miles wide by 20 miles long or approximately a total of 300 square miles.

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[1] As of date of publication, the questions and answers thereto were not received for the record.

Should the citrus canker in any of its forms become established in our lime groves, this infectious disease will spread very easily and quickly throughout the entire grove area. It also can be expected that this disease will spread to and destroy other citrus fruit groves. Past experience with citrus canker in Florida shows it can seriously affect all types of citrus fruits.

The only effective cure for the citrus canker disease is plowing and burning of the infected trees. Should this process be required of a lime grower, it would cost approximately $1,000 per acre to plow and burn lime groves. Possible damage to established irrigation and harvesting systems might also occur. With 7,489 acres of planted groves in Dade County, this damage could amount to $7.5 million. Should the plowing and burning be required throughout the entire lime-producing area, the value of lime groves destroyed is conservatively estimated at $74 to $75 million.

Depending on the amount of time the grove areas must remain fallow to assure the authorities that the disease has been eliminated, the industry stands to lose approximately $4,800 per year in gross revenue per acre. This would amount to an annual loss of $36 million for the lime industry. In addition, losses of employment for several thousand workers in the Florida lime industry can be expected with additional losses of jobs in supporting industries.

When the area is declared disease free, lime growers who are still interested and able to replant their groves are faced with an expenditure of approximately $2,500 per acre or $20 million to complete the replanting of groves to limes. If there was damage during the clearing and burning to the irrigation systems or damage during planting, this expense would have to be taken into account.

In order to bring a lime grove into full production, the grower will have to spend approximately $1,000 per acre for 4 years to bring this grove to the break-even point. This would amount to $8 million per annum or $32 million for the industry.

The approximate total cost of the eradication, fallow period, replanting and growth periods to the lime industry is estimated at $206 million. Even after the expenditure of this amount of money, there is no assurance that there will be a market remaining for Florida limes nor is there any assurance that there will be a competitive position in the marketplace for Florida limes. The loss of business and damage to the hopes and aspirations to the Florida lime growers are incalculable. And, while Mexican growers have and will have a market for their limes in Mexico, domestic fruit growers are faced with a total loss of their market. In addition, I believe the public will suffer directly if Florida limes and citrus are not available.

Another problem could plague the industry after the eradication process which might make reestablishment of the groves difficult; where would industry find 1½ million lime trees free of disease? In addition, I would expect that more than half of the 300 to 400 lime growers in this area would go out of business because of the high costs needed to start up a growing operation.

Senator, we have led the fight to close the borders and we have helped the fight to regulate the airports and we have led the fight to attempt to contain this disease from geting into Florida since it was discovered in Mexico. I think you should know that one of our

growers is a gentleman by the name of Bill Krome, and his father was the chief engineer of the FEC Railway and was the engineer to put the railroad from Homestead to Key West. They were grapefruit growers at that time in 1920 when Dade County was the second largest producer of grapefruit in the world. Mr. Krome's father also had the distinction of leading the eradication efforts of citrus canker in Dade County beginning in 1920. Bill Krome, himself, remembers, as a young boy, men coming to his father's house every day and putting on these white inspector suits and then taking them off and he remembers clouds of black smoke as the grapefruit industry in Dade County went up in smoke. A lot of grapefruit growers are now lime growers and you can understand why, I hope, we have been very, very concerned about this from the beginning. A lot of people have said that our concern stems from economics, that we want to impose an embargo on Mexico because we will benefit economically, but I submit to you that the lime industry in Florida has been able to supply limes to the United States for reasonable prices and we still face, if Mexico is embargoed, competition from Honduras, the Bahamas, and Costa Rica. We have been particularly frustrated because we have argued the biological argument and it seems that the economic argument has prevailed and we have particularly been unhappy with the measures that have been taken.

The USDA and APHIS used regulations that have not prevented citrus canker from coming into the State of Florida. We don't think that it's the fault of individuals involved in these agencies, we think their professionalism is tempered by some other department and the Government; some of us think that the State Department wants to maintain good relationships with Mexico. I can only say this, that the standards to which we are subjected are not the same standards that the Mexicans are subjected to.

I listened to a presentation by a gentleman from Mexico in August who made the statement that we don't have citrus canker in Mexico; we have the bacterium; it's "no problem." His bacterium is called "no problem," as our bacterium is called "citrus canker."

When Anthony Quinn was Zorba the Greek, he described marriage as the "ultimate catastrophe." Today, because of the quarantine and restrictions, the Dade County lime growers cannot sell a lime in Miami, and yet the Mexican lime grower can sell a lime in Miami.

And I submit to you that this is the "ultimate catastrophe." The USDA and APHIS tell you that the reasons the Mexicans can sell a lime in Miami is that they know a lot about that strain of citrus canker. In Mexico, we have been watching it for over 2 years. We know it doesn't get on the orange; we know it doesn't do this and we know it doesn't do that, and we have just seen this new strain in Florida and we don't know too much about it.

Even though you've dipped your limes in the chlorine, you can't sell them in Florida, which is a citrus-producing State, and they have dipped their limes in chlorine and they have that bacterium, and they can still sell them in Miami. And I submit to you that I don't think the USDA and APHIS know very much about the bacterium. In Mexico, they are not permitted to get in there and look

around. They are not permitted to go there and make an onsite testing. There are a number of areas that are off-limits to them and they are receiving absolutely no cooperation whatsoever.

I know that the dipping of limes is not complete in Mexico. People tell us that when the USDA Sanidad and Vegtal come around, everybody dips and when they leave, they don't dip. I made that in the statement affidavit to those agencies.

Senator, we have a vice president who likes to talk about ducks, talks about them quacking, and if they look like and sound like ducks, they must be ducks, and I submit to you that that bacterium in Mexico and the one we have got here in Florida are all quacking.

We would like to say that we believe that Dade County is free of citrus canker and we knock on wood there. We would like to also say that we support any and all efforts to eradicate the disease and we hope that it's confined in nurseries, and if it's not confined in nurseries, that we confine it and get rid of it.

We also feel that we have to get this border closed. It's another possible source of contamination of unknown bacterium. Let's get it closed. Let's go about the job of cleaning up our own shop and then we'll deal with these other problems as they occur.

Thank you very much.

Senator HAWKINS. Thank you. Your testimony has been most helpful.

I did ask the Secretary of Agriculture to close the Mexican border. I believe they're discussing that this week.

Is it true that you and other members of your organization have been through the experience of having your fruit certified citrus-canker free?

Mr. KENDALL. That's correct.

Senator HAWKINS. The majority of citrus growers have not been through that, as you know.

What kind of problems did you experience?

Mr. KENDALL. Relatively few, because we had a small area; we had a good number of inspectors and they got it through in 4 or 5 days.

Senator HAWKINS. 45 days?

Mr. KENDALL. Four or five days.

Then we had to have a recertification under the State program.

Senator HAWKINS. How long did that take?

Mr. KENDALL. Actually, we only had to certify that they had not purchased trees from inspected nurseries and we had not put in resects from inspected nurseries, so that took several days. There was disruption. Fortunately, it rained during these days, and we couldn't have picked any fruit anyway, but it has been disrupted, but it hasn't been a serious problem.

Senator HAWKINS. Do you have markets for your limes?

You say Florida produces a great deal of the limes consumed in the United States?

Mr. KENDALL. Well, of course, we sell limes all over the United States and in Europe and Canada. Interestingly, I think, we can't sell them in Mexico; we also can't sell them at this point in time in Florida, Louisiana, Texas, Arizona, Puerto Rico, California, and some other places in the United States.

Senator HAWKINS. Even though they've been certified citrus-canker free?

Mr. KENDALL. Even though our groves are certified citrus-canker free and they have been dipped in chlorine.

Senator HAWKINS. You certainly contributed a lot to the record by telling the Senators, who will read this, what ultimately you go through when this happens.

I know I heard from you about closing the border. I often talk about closing the border.

I recently talked to David LaRue about closing the border.

Mr. KENDALL. I'd like to talk to one point that might encourage closing the border. Of course, there is some feeling that a Mexican economy might be hurt, or they might get mad at us, or something, but since 1923, avocados from Mexico cannot be sold in the United States because of a seed weavil. The seed weavil has not occurred or appeared in groves in California, south Texas, and Florida. In that period of time—and it shows us we believe that the quarantine against the seed weavil is effective and that Mexico hasn't attacked us yet. We think this same thing can occur relative to Florida's citrus and Mexican citrus.

Senator HAWKINS. Mexican?

Mr. KENDALL. Yes.

Senator HAWKINS. Since lime growers have so much to lose, will your industry be willing to contribute to a compensation program?

Mr. KENDALL. We will be willing to do whatever is mutually beneficial for the entire industry.

I believe the feeling on the compensation program is that—and I think the basic rule on citrus canker is, if you get right on top and get to work on it and eliminate the source, that you probably have a couple of good chances of success, and I would think that the prospect of compensation causes people to step forward very quickly.

Senator HAWKINS. Where do you buy your nursery stock?

Mr. KENDALL. We have our own nurseries. The industry generally has 4 to 6 nurseries where they grow lime seedlings. They are all in Dade County.

Senator HAWKINS. Thank you very much. We appreciate your contribution to this hearing.

I would like to now hear from Mr. Collins, the general manager of Ward's Nursery.

## STATEMENT OF CHARLES COLLINS, GENERAL MANAGER, WARD'S NURSERY

Mr. COLLINS. I am Charles R. Collins. I am from Avon Park, FL. I am general manager of Ward's Nursery, Inc.

When I leave the city limits of Avon Park, I do need a credit card.

Senator HAWKINS. You may not have to have one after today.

Mr. COLLINS. On August 23, we reported an unknown disease we found in our citrus nursery operation which later proved to be the dreaded citrus canker. Today, a near state of panic exists among citrus growers throughout the State of Florida. There is no doubt that a threat exists in this citrus industry. Every reasonable effort

should be made to find the source of this disease and eliminate it. We must prepare for possible future appearances.

To its credit, the Division of Plant Industry has moved quickly. In concert with the U.S. Department of Agriculture, an all-out effort is being made to contain and eliminate the problem. Our nursery has been completely eradicated—all the budded stock—all the limed-out seedlings—all the budded stock—all the seed beds—everything. It is my understanding that the other five nursery operations with positive finds have also been competely destroyed. This quick and decisive action may very well limit this outbreak to these nursery sites and keep it out of the industry at large.

To our dismay, there have been other instances of what we consider to be overreaction and overkill. It seems to us that the Division of Plant Industry, in an effort to get maximum grower and public support, has not been above manipulating the facts and slanting information releases to favor positions they wish to adopt. In particular, the technical panel is loaded with persons from the research and scientific community with limited practical feel for industry needs and little responsibility for the impact of their recommendations. There has been almost no input from industry leaders themselves in developing the guidelines to be used to handle the eradication effort. This has created a good bit of unrest and suspicion among growers involved.

We do need and request financial assistance from both Federal and State levels to help eradicate citrus canker from Florida. We know that many citrus nurseries will face bankruptcy when their nursery stock has been destroyed. There is no time to wait and see if they have infected material. The risk is too great to the rest of the citrus industry. They will, of necessity, be sacrificed for the rest of the industry. If in time, they have proven that they have no canker infection, it seems only reasonable that the Florida citrus industry as a whole would share the cost of this sacrifice. We feel the Federal Government and the State government both have a role to play.

We feel the Federal role in this could possibly be in the form of low-interest loans. Destroyed nurseries could be given a 5-year period of recuperation before loans would be repaid. We do not feel the Federal Government should bail out any farmer or any other citizen, for that matter, by assuming risks that are inherent in any business venture.

We feel that at the State level, the citrus industry itself has a responsiblity to tax itself to compensate those who had to be sacrificed to save the citrus industry. We see as a model the same sort of procedure used to raise funds for harvesting research. A tax of less than 5 cents per box would quickly pay for the compensation program. This would spread the load lightly on all growers who have been protected and thus benefited by the necessary eradication effort. We further believe that it would be wise to continue the tax until a fund has been accumulated to handle any future outbreaks of this or similar diseases. Dangerous reactions can result from the experience we're going through. A massive eradication effort carried out before the extent and scope of the problem or its origin has been determined could be millions of dollars of unwarranted destruction and expense. At the present time, there seems

to exist a climate of go full speed ahead in all directions at once. Hopefully, reason will return and prevail soon.

If citrus canker is to be contained and eliminated in the State of Florida, it will require the complete cooperation of everyone involved. If small citrus nurseries and growers are destroyed because they have been exposed to this dreaded disease and are not compensated, they must, in their own self-interest, question the wisdom of cooperation. They will no doubt turn to legal and devious methods to avoid what they consider unfair destruction. This could dismantle and undermine the whole eradication effort. What citrus grower or nurseryman would want to willingly step forward after an outbreak if it meant instant and total destruction of everything they had worked for. Even though this will continue to be necessary to protect our citrus industry at large. Accounts from the news media tell of $1 million being obtained from the Federal Government for research to be done on citrus canker. This is very much needed. We are grateful. We are, however, hopeful it will be spent on field research here in the State and not make its way to some ivory tower.

Finally, and perhaps greatest, is the threat of governmental and regulatory agencies using this opportunity to create a whole new layer of rules and regulations, divisions and bureaus to help us in our struggle. It is our belief that citrus canker can and will be controlled. The cost of paying for an expanded and expensive bureaucracy could be much higher and much, much harder to get rid of.

Help us, because we need help. Resist the efforts of those who would seek to save us by helping themselves.

Senator HAWKINS. Mr. Collins, where did you get your seeds?

Mr. COLLINS. Most of our seeds are grown in our own validated seed sources under the guidelines of the Budwood Registration Program in Lake Alfred, the State of Florida, Division of Plant Industry. We did get a very limited amount of seed from the USDA in Orlando from the Foundation Farm during the past 2 years.

We have also obtained a few bittersweet seeds from wild trees along the Peace River in De Soto County.

Senator HAWKINS. When was the last time your nursery was inspected for pests and disease before the discovery of the canker?

Mr. COLLINS. I understand there was a routine inspection in April. We do have people from the Division of Plant Industry in our nursery on a regular basis.

Senator HAWKINS. Annually; every 3 months?

Mr. COLLINS. I understand they make two inspections a year. They come and we've always cooperated with them. They have full access to our nursery.

Senator HAWKINS. Is this State or Federal?

Mr. COLLINS. State government.

Senator HAWKINS. Your nursery has had considerable losses as a result of the canker.

Did you have any insurance to cover that kind of loss?

Mr. COLLINS. No, ma'am. There is no insurance. That sort of risk, the premiums just are too expensive to justify carrying such insurance for.

Senator HAWKINS. If you could determine the role Government should play in this situation, and I share your attitude about Government, what would you define the Federal role to be?

Mr. COLLINS. Strictly an emergency basis to help us eradicate that problem and then to give us assistance in the form of loans so that we can pay them back eventually just as they did Chrysler; get Florida to help us out of the terrible situation we are in.

Senator HAWKINS. What about the State role?

Mr. COLLINS. I don't think they have the responsibility of taking the risk out of farming.

Senator HAWKINS. Nor can we.

Mr. COLLINS. The State should, as I described in my statement, I feel like it's the industry responsibility and unless this thing gets completely out of hand, we should be able to tax the industry and take care of this problem now and in the future whenever we have future outbreaks.

Senator HAWKINS. We really do appreciate your testimony. You've had a lot of thoughtful solutions to the problems. We appreciate your contribution and your appearing here today and, hopefully, you can do credit card commercials.

Mr. COLLINS. Thank you.

Senator HAWKINS. At this time, I'd like to take a few minutes to call Senator Langley for a statement and also we have Representative Webster here with us and I would like to continue for a short time. We appreciate your being here and adding to this record.

## STATEMENT OF HON. RICHARD LANGLEY, A FLORIDA STATE SENATOR

Mr. LANGLEY. We do appreciate your attention to this matter and your concern for the people of the State of Florida, and as Commissioner Conner mentioned, only 3 percent of the country is involved in the production of food production, but agribusiness in Florida is, you know, a very big business from—second only to tourism, and that's questionable.

I am here to speak primarily and to ask for your commitment to some form of compensation for the nurserymen and the growers who are going to suffer direct financial losses as a result of this.

The tax, perhaps, would be one form of compensation, but I think right how the grower and the nurserymen need to know that you can't commit the U.S. Senate and neither can I.

Senator HAWKINS. I do it a lot.

Mr. LANGLEY. And neither can the Florida State Legislature.

But, they need to know there is some commitment for some remuneration, otherwise, we're really testing the honor system.

Particularly, with the hard-time nurserymen who may well spread it as well as the big nurseries, when they find what they might expect to be an outbreak of a canker and that is their sole income or a portion of their capital assets, it's going to be a real test of altruism for them not to just destroy that out of their own volition rather than to report it to APHIS or to the Department.

I have already filed in the Florida Senate a bill as a vehicle. Representative Weber will be filing it sometime in the house to get this before the earliest session we have of the legislature, and

whether it can be at the organizational session in November or a special session that is to be called in early December, I don't know, but this is an open-ended bill.

I think the formulation of compensation percentages may extend and all can be decided later. But I would like to see a committee from whomever you can commit from the U.S. Congress that there will be some, so that these people will have some source, that perhaps there is going to be some compensation in some form and some percentage so they will be more able and willing to cooperate in this effort. Otherwise, I think we're really stretching their loyalty pretty far.

Senator HAWKINS. I am committed to that.

Let me ask you one question: You heard earlier that the commissioner has a little bit of trouble getting money from the State even through there were surplus funds.

Do you have any recommendations how we would not be forced to convene an entire legislature to have access to other funds other than emergency funds?

Mr. LANGLEY. I think Commissioner Conner said we probably would have enough to carry us through with normal inspections.

Senator HAWKINS. I hope so, this is a very serious situation.

Mr. LANGLEY. I see Senator Fox from Dade County—that's about half the legislature when you take in Dade County—but, with the cooperation of the Dade County delegation and all of the central Florida delegations, I think that they should have the house and the senate have something done about this, so I'm glad to see Senator Fox here. I'm sure they'll cooperate.

Senator HAWKINS. It shows her concern, but I do worry about why we will have to convene the legislature. It's just happenstance that they will meet in November. Would this to have been a larger outbreak and more virulent strain of bacteria that spreads much more rapidly, I can see the need for having access to additional funds from the State.

The Federal Government has just been super. I must say I've never seen such a fast response from the Federal Government on an emergency basis.

We are also considering compensation at this time, but I want to register my concern that you, as legislators, do something in this next session.

You heard the professionals here today say that it's not the last time this is going to happen; it might not be for many years, but given the open-door policy of the United States and ease in travel, we must be tougher against these diseases and pests.

I'm proud of this industry for standing on its own two feet, taxing itself for its marketing and merely desiring free markets which we have nowhere in the world except in the United States.

I would just like those elected representatives here from the State of Florida to do something creative that would allow a quicker handling of the funds necessary for this situation.

Mr. LANGLEY. I was surprised with Mr. Collins' knowledge of government and how it really worked.

I think his suggestion of an emergency fund to be set aside through a special tax would be a very good idea.

Senator HAWKINS. Thank you.

Representative Webster?

## STATEMENT OF HON. DANIEL WEBSTER, A FLORIDA STATE REPRESENTATIVE

Mr. WEBSTER. Thank you. I would like to reflect the same sentiment as Senator Langley did; we appreciate your coming to Orlando and looking into the matter and giving assistance from the Federal level. I believe it's very important.

This is an industry again that may be a small portion of the overall aspect of Florida, but it's very important and we appreciate your coming.

Senator HAWKINS. Is your district affected?

Mr. WEBSTER. Yes. It's southwest Orange County, and even though with all of the growth, we still have citrus but we don't want to give people any more reason to sell out to developers. We kind of like our citrus industry and we'd like to keep it intact if we can.

We appreciate all that you're doing in that regard.

Again, Senator Langley and myself will be filing a bill which at least will be a vehicle that can be debated in the next session that will help give some relief to those that have had to destroy all that they have and we want to do that. I like the idea of self-taxing; that would solve two things. One, it would help pay back whatever loans are coming and the second thing is long term, it would help provide it in the future an opportunity to draw from that amount of money to forgo any need of State funds again.

Senator HAWKINS. In light of there being the request for low-interest loans, long-term loans from the Federal Government, you support that concept, also?

Mr. WEBSTER. Yes; I think that's a good idea and any help you can give on that will be appreciated.

Senator HAWKINS. Thank you very much, Representative Webster.

Senator Fox, do you have any comment?

Senator FOX. Yes.

Senator HAWKINS. We thank you for coming all the way from Miami.

## STATEMENT OF HON. ROBERTA FOX, A FLORIDA STATE SENATOR

Senator FOX. Senator Hawkins, I just want to thank you on behalf of the citrus industry of south Dade County for coming here and showing your interest.

I also want to share with you that the cabinet has no authority, I believe, to shift funding from another program on a 5-percent basis for emergency purposes. There has been an increase over budget estimates in Florida, as Senator Langley said, in the amount of $16 million and we have funds available. I anticipate, and Senator Langley and I think you would agree with me that there will be a special session during the second week of December and this issue, along with the child care issue, along with the unitary tax, will receive the attention of legislature.

I want to emphasize both to the Commissioner and you in closing that the situation in south Dade County really points up the inequities to growers and growers from that area have been crying out year after year after year about the danger of allowing Mexican products to come into our marketplace. Having allowed that to happen, they now find themselves—they didn't allow that to happen; the Government has allowed that to happen and they have not heeded their word and now they find themselves in the position of being placed in an economic disadvantage by Government because—this is true that Mexican products can be sold in Dade County and American-grown products cannot be sold in Dade County and that inequity is only compounded by the entire catastrophic condition here and I urge the people who have charge of this to take a hard look at this, to reconsider the embargo, a total embargo and to allow American growers from areas that are clean to go ahead and be able to sell their produce.

It is grossly unfair to allow American farmers and growers to be at an economic disadvantage, particularly in this State.

Senator HAWKINS. Thank you. I agree with you and as I've said we need an agriculture desk at the State Department.

I thank all of you for participating in this hearing today for this very serious subject. It's something that I think needs a long-term solution, and like they said, it's canker here and bacterium in another country but it's here and we must deal with it.

We have answered many questions that the U.S. Senate will be asking me. I certainly support compensation for those people who have lost money. We appreciate our industry; it's a wonderful industry to represent. And I might say, I really hate to ask anything of the Agriculture Department except emergency help when we have had acts of God, like the freeze, like the citrus canker, which we know we got from another country and, again, it will not be difficult, I believe, to have a compensation program drawn out for those that have suffered losses.

I appreciate the willingness of Mr. McMillan, Secretary Block, for being so cooperative with us, Commissioner Conner, who I am very delighted to work with, and we have these two departments working very well together and I want to get the border inspectors to sit down with us and I want all airport centers to have a conference while we have everyone alerted to this particular problem.

Some are talking about taxing the other fellow, but however we get the money, we must, on behalf of an industry that we hold out as an example to other farmers as an example of how they should be developing their particular marketing programs for their crops rather than having them subsidized.

Commissioner Conner has given me the citrus canker hotline number. Commissioner, would you like to announce the number? It's available 24 hours a day.

Mr. CONNER. The new citrus canker hotline number for Florida is 1-800-282-7161.

That number, I bet, will be used. It will be a very active number. It is in place today. It is an operating number.

Senator HAWKINS. Thank you very much.

[Whereupon, at 12 noon, the committee adjourned, subject to call of the Chair.]

# APPENDIX

STATEMENT OF C. W. MCMILLAN, ASSISTANT SECRETARY, MARKETING AND INSPECTION SERVICES, U.S. DEPARTMENT OF AGRICULTURE

I appreciate the opportunity to be here in Florida today to review the U.S. Department of Agriculture's (USDA) activities in responding to the current outbreak of citrus canker in Florida. Appearing with me are Mr. William F. Helms, Associate Deputy Administrator for Plant Protection and Quarantine with the USDA's Animal and Plant Health Inspection Service, Dr. Edward B. Knipling, Associate Deputy Administrator for the National Programs Staff and Dr. Ed Civerolo, Research Plant Pathologist with the USDA's Agricultural Research Service.

While I will focus my remarks on what we are doing to stop the current outbreak, I have a background paper to submit for the record. It addresses the nature of the disease and its history in the United States.

Since this bacterial disease was discovered in Polk County on August 27, 1984, USDA has been working closely with the State of Florida, first to identify the disease and now to prevent its spread while seeking out existing infestations and eradicating them. Because of the serious threat citrus canker poses for our citrus industry, we are committed to eradicating the disease as soon as possible, with the least possible disruption to domestic and foreign markets. On September 11, shortly after citrus canker was confirmed, Secretary Block declared an emergency, authorizing Federal funds and personnel to match State contributions toward eradicating the disease. At this time, more than 65 Federal personnel are working in Florida as part of the eradication program.

In studying the disease, USDA scientists and scientists working independently at the University of Delaware and in Florida found that this disease is unlike any previously identified strain of citrus canker. For example, scientists have identified five characteristics that have convinced them that the pathogen found in Florida is significantly different from the one in Mexico and from the "Strain A" found in Asia, including some areas of Japan. We are unsure how the disease entered the United States. Efforts to establish the possible pathways are underway, even to the extent that USDA has asked for the investigative expertise of its

Inspector General to help determine what caused the introduction of the disease.

While research to learn more about this strain of the bacteria is continuing, we have learned that it is a highly virulent form that is easily spread but, as with all forms of citrus canker, poses no threat to human health. We know enough about it now to know that it requires the kind of prompt and strong measures that are being taken.

To prevent the interstate spread of citrus canker, we placed a quarantine on all of Florida on September 14. This was the only prudent course of action to protect the Nation's citrus industry while the situation in Florida was better clarified. While containment of the disease is essential, we also recognize that many Florida growers either are currently harvesting or soon will harvest fruit that needs to be shipped if it can be moved without spreading citrus canker. Scientists have determined the safeguards needed to ship fruit, and the USDA emergency regulations do allow movement of fruit under strictly controlled conditions, if it is not destined for a U.S. citrus-producing region--American Samoa, Arizona, California, Hawaii, Louisiana, Puerto Rico, and Texas. To ship fruit interstate, shippers must obtain a permit indicating that:

1. The fruit comes from an area that has been surveyed and found free of the disease.

2. The fruit has been inspected and found to be free of signs of the disease, as well as free of leaves, litter, and stems that are 1-inch long or longer.

3. The fruit has been dipped in an approved disinfectant to ensure against surface contamination.

These quarantine actions are generally less stringent than action taken earlier in Mexico. When citrus canker was reported in Mexico in July 1982, we immediately closed our borders to all Mexican citrus, not just fruit from infested States. After the completion of countrywide surveys over several months, we allowed citrus to begin moving again, but we restricted movement so that this fruit could move only from noninfested Mexican States and then only to noncitrus-producing States in the United States. Only after we determined that the organism did not attack fruit and after we had conducted additional countrywide surveys did we allow shipments to resume to any point in this country and again only from noninfested States. In all instances, the fruit must be disinfected and free of leaves and twigs.

The restriction on any movement of Florida citrus lasted only a few days as we quickly began cooperating with the State to survey areas where fruit had been harvested and was ready to be shipped. As early as September 17, some shipments were cleared for movement. So far, we have been able to certify more than 11,226

acres as free of the disease and permit about 195 shipments of fruit to move. We will continue to review the appropriate regulatory action necessary as new developments occur in the program.

In our efforts to avoid disruption of our international markets, we have been in contact with regulatory officials in countries that import our citrus. For example, we met last week with plant protection officials from Japan. They reviewed the program on the ground in Florida last Saturday. We stressed to them the safeguards we are employing to allow the movement of fruit from noninfected Florida groves and emphasized that this approach parallels the procedures used by the Japanese for movement of their Unshu oranges to the United States. We hope that they will accept this protocol and allow Florida citrus to continue to move to Japan.

At the same time as we have been working to prevent spread of citrus canker while minimizing market disruption, we have been working equally as hard to help the State locate and eradicate existing infestations. Fortunately, Ward's Nursery, where the disease was first discovered in Florida, kept excellent records of where it had shipped plants. We have been able to survey all 46 nurseries that received shipments, and 6 of them have since been found to be infested. We are now tracing all shipments from these nurseries as well. Because there is no treatment for infected trees, all hosts at affected nursery sites must be destroyed. A round-the-clock burning operation was put into effect on September 12 at Ward's Nursery. All trees there have now been destroyed, as have trees at 3 of the other infested sites.

At this time, all phases of the eradication program are continuing at full speed. Research is continuing so that we can learn more about the disease, quarantine restrictions are being enforced so that the disease will not be spread, surveys are continuing so that we can precisely define the extent of the infestation, and destruction of infested material is continuing so that we can remove possible sources of spread.

In addition to our eradication efforts in Florida, APHIS has established a panel of scientific experts to examine the regulatory activities, both domestic and international, of its plant Protection and Quarantine program area. This effort is not the result of concern about any inadequacies of the existing program but to examine the changing scenario of the movement of commodities and people as primary pathways for the introduction of exotic organisms into our agricultural production system and to determine if the current regulatory approaches are sufficient. Dr. W. G. Eden, who has been a former head of the departments of entomology at Auburn University and the University of Florida and is a past president of the Entomological Society of America, will serve as chairman of this scientific panel.

In closing, I would like to note that the cooperation of the industry has been essential for the program to achieve so much in

such a short time. The citrus industry recognizes the possible consequences of this infestation and has been willing to take the steps necessary to work toward its prompt eradication. With continued close cooperation of the Federal, State, and industry participants, eradication can be achieved in the shortest possible time, and the Florida citrus industry can continue its business of providing our Nation and the world with high-quality citrus products.

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STATEMENT OF HON. DOYLE CONNER, COMMISSIONER OF AGRICULTURE, STATE OF FLORIDA

My name is Doyle Conner. I am Florida's Commissioner of Agriculture, charged by the Constitution of the State and the statutes with the protection of our agricultural industries from pests and diseases. I appreciate this opportunity to discuss our citrus canker problem.

In all my years as commissioner, I have never experienced anything quite like the threat citrus canker presents to our No. 1 agricultural enterprise--our vast citrus industry.

This disease is, by unanimous opinion of all the experts, the worst that can happen to our citrus groves, which already are suffering from the lingering effects of last winter's freezing temperatures, which killed citrus trees on about 86,500 acres of groves and is requiring the replacement of several million trees from nursery stock.

The disease, occurring in nurseries but so far not found in groves, is further reducing the citrus industry's capability of replacing trees as we have had to destroy millions of seedling trees, budwood and other replacement material.

The industry estimates that the freeze and the citrus canker nursery losses combined with some urbanization of groves and abandonment of acreage for fear of some future weather disaster have set the industry back about 10 years from previous production records.

Development of citrus properties in other countries may cause us to lose our share of the market, which will be very difficult to reclaim in the years to come.

I want to assure this committee and the people involved in the citrus industry as well as consumers of Florida citrus products throughout the world that everything we know to do is being done to conquer this disease.

The Florida Department of Agriculture and Consumer Services, through its division of plant industry, is fully cooperating with

the U.S. Department of Agriculture's Animal and Plant Health Inspection Service, the University of Florida's Institute of Food and Agricultural Sciences and the Florida Department of Citrus.

We have instituted an eradication program using the only known method of ridding our State of this bacterial disease--destruction by burning of all infected plants, as well as plants exposed to infection.

In all the decades of study of this disease, no other way has been found to eradicate this disease.

We are using State of the art methods of eradication until some other effective method can be found.

We had this disease in Florida from 1912 until it was declared eradicated in 1933. We are today employing the same method to eradiate it as we were then. We trust that it will not take so long to get rid of this disease this time around. But this will not be a matter of weeks or even a few months; we see a drawn-out campaign before we can rest assured there is no more citrus canker in Florida.

As soon as we were informed that Florida was infected with canker, I assembled a technical advisory group of the most knowledgeable scientists available with experience with citrus canker in other nations--primarily South America and Mexico.

I have no expertise in plant pathology. I have relied on the expert advice of this group of scientists who do have knowledge and experience with canker as well as the leaders of our citrus industry to bring a well-rounded view of anti-canker measures and their effects on the citrus industry.

We have proceeded with the destruction by burning of all known infected nurseries. The disease has not been found in any mature groves, but we feel it is a distinct possibility that it will be because the extensive number of citrus tree resets distributed from infested nurseries to replace dead trees killed by the Christmas freeze of 1983.

We have mobilized all our forces and have brought together those people most directly affected by the threat of the disease to help survey and monitor groves. We are training them in identification of the disease and how to handle any suspicious disease indicators in groves and nurseries.

We have restricted the movement of citrus fruit from Florida on an interstate basis throgh a Federal quarantine. This allows certified fruit to go to States which do not have citrus production. We also restricted intra-state movement of fruit to keep from spreading the disease within Florida. All movement of citrus nursery stock, including those from retail outlets for dooryard plants, has been stopped.

We have established methods of disinfecting fruit from groves certified to be free of canker so that movement of fruit to other States is facilitated. We likewise have instituted disinfectant procedures for grove workers and for equipment used in harvesting and processing fruit to minimize the possibility of spreading the infection.

We can and will conquer canker. We will preserve a future in our State for a healthy citrus industry. If eradication measures seem extreme, I submit that the economic consequences of failure to eradicate this disease are more extreme.

I think, however, we can make some observations about the future.

We approve the U.S. Department of Agriculture's announced intention of reviewing its inspection procedures for potential agricultural threats from foreign nations. We urge tighter port inspections at all points of entry into the United States, although we recognize that Florida is a major point of departure and return for international travelers.

Federal and State inspectors have intercepted numerous foreign pests and diseases at ports of entry. We undoubtedly let some slip through because it virtually is impossible to stop every harmful immigrant of this nature so long as this remains a free Nation. But we must try.

In the last dozen years, Federal and State inspectors have intercepted citrus canker at least 171 times in Florida alone, and 5,318 times in the Nation as a whole. Records disclose interception of canker 960 times in the U.S. last year alone. We worry about the disease we haven't intercepted.

I wish to impress upon you the seriousness of this disease threat to the citrus industry in the United States, although we are doing everything we know to do to prevent the spread from infection sites in Florida and believe--and hope--that we are lucky enough to detect it early through cooperation with the nursery owners. However, it is of utmost importance that you realize that funding needs will continue for some uncertain period of time and we earnestly seek you support of our eradication efforts.

Similarly, I hope that your committee can give favorable consideration to the prospect of using public funds to compensate or indemnify those owners of trees which must be destroyed in order to eradicate ths disease, as you have provided in certain other eradication programs involving exotic diseases of animals and in redressing damages which result from insect eradication programs.

I have requested my citrus canker technical advisory committee to study the possibilities of indemnification and will be in further contact with industry leaders and Federal officials on this

subject. There seems to be sentiment within the State legislative and executive branches favorable to the idea of restoring the economic health of these distressed industry people who have suffered considerable losses through no fault of their own.

Ladies and gentlemen, that concludes my observations. I would welcome any questions as to what we have been doing in Florida to deny this pest a foothold in Florida's citrus industry.

Thank you.

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FLORIDA GIFT FRUIT SHIPPERS ASSOCIATION
521 N. Kirkman Rd.
Orlando, Florida 32811
October 3, 1984

Honorable Paula Hawkins
United States Senate
Washington, DC 20510

Dear Senator Hawkins:

I regret that this Association did not participate in the recent hearing you held in Orlando. I thought your appearance was going to be in the nature of a question and answer type program, and didn't realize until I came that it was actually a formal hearing. At any rate, I did have an opportunity to talk with your Administrative Assistant, Mr. Sauls, and advised him that I would send you a letter on our views.

The Gift Fruit Industry is that particular segment that is probably most seriously affected by the recent order of Commissioner Conner to halt the sale of fresh fruit in Florida. Our Industry sells in the neighborhood of 12 to 14 million bags of fruit annually to the 40 million tourists who visit the State each year. We also sell millions and millions of gallons of fresh orange juice to the tourists who come to the State in such large quantities. And although we will still be allowed to ship gift fruit packages out of the State which amounted to over 2 million packages last season, we are concerned that people will not order such shipments because of their belief that there may be something wrong with the fruit if they cannot obtain it for themselves while they are visiting Florida.

Attached is a copy of an ACTION PLAN developed by this Association which we feel would protect the Industry; and, at the same time, allow our people to get back in business. It is estimated that of our 142 members, perhaps as much as one-half of them will be out of business by the year's end unless they are allowed to sell fruit in Florida.

When we approach Commissioner Conner with the Plan he seemed to feel that a major objection would be coming from the USDA because of problems on an international level. Frankly, there were very many problems in putting this ACTION PLAN together--a Plan which would place a great many burdens on our people to enable them to sell fruit in Florida. It is our feeling that perhaps the work we put into the development of this ACTION PLAN can be duplicated by our State Department in trying to work out any problems which might arise in order to save our Industry.

Any help you can provide us in dealing with the international problem will be greatly appreciated. Should you need any further information from us, please let us know.

Warmest personal regards,

William A. Stubbs
Executive Vice President

Enclosure

ENCLOSURE TO CANKER BULLETIN NO. 3

The following plan has been developed by the Association AD HOC Committee on the citrus canker problem to put you back in business! This plan was submitted to Commissioner Doyle Conner at the special meeting in Gainesville, September 28, 1984.

THE ACTION PLAN:

This plan is designed to place fresh Florida citrus into the hands of Florida consumers and tourists. It is important to recognize that this plan calls for very careful regulation and the distribution of a canker free, high quality Florida citrus product. No deviation from this plan will be allowed unless directed by Florida Department of Agriculture/USA.

1. Only citrus fruit from certified canker-free groves will be sold.

2. All fruit will pass through registered packinghouses only. Registered packinghouses will be subject to State/Federal Inspection and such inspection will include, but not be limited to sanitation, proper chlorination procedures, adequate PH range, complete coverage of all pieces of fruit.

3. Fruit will be State/Federally Inspected. State/Federal Inspection will be continuous while fruit is being run. This inspector will issue a "POSITIVE LOT CERTIFICATE" to each lot of fruit being run by the packinghouse. Treated fruit will then be put into sealed containers. Containers will be sealed with an acceptable USDA approved closure. A fee may be assessed for these closures. The fee would be used by the State of Florida to defray these extra inspection expenses. This closure will be

marked in an unique manner, and will be designed so as to prevent opening without actually breaking the seal.

4. The only containers allowed will be the following: 5# bag; 8# bag: 2/5 bushel carton; 4/5 bushel carton. No other containers will be allowed. These containers have been approved for retail use by the Department of citrus. Other containers such as paper bags, or loose fruit will be strictly prohibited. Each sealed container will be identified providing that it meets the above requirements.

THERE ARE SEVERAL REASONS WHY THIS PLAN SHOULD RECEIVE FAVORABLE CONSIDERATION:

- It allows for placement of a quality piece of fruit on the market--fully treated and safe. This fruit will be properly treated, inspected, and certified. "Black market fruit" will meet none of these provisions.

- By allowing a legitimate outlet for fresh fruit, theft of fruit should be reduced and black market operations lessened to a considerable degree.

- An informal survey of members of the Florida Gift Fruit Shippers Association shows that a significant number will be forced to cease their businesses, unless allowed to sell retail. Other gift fruit operators who are not members who would be similarly affected may number in the hundreds.

- Gift fruit shippers can comply with the provisions of this plan and provide a safe and delicious product to a local consumer.

- The shutdown of intrastate fresh citrus sales will mean that Florida's premier agricultural product--the fruit synonymous with the state's image--will be substituted by out-of-State product--and unnecessarily so! Florida's tourist industry which has accounted for millions of boxes of fresh citrus sales each year must now leave the State wondering how really safe the product is if they can't buy it here.

- The Florida State Inspection Service can administer this plan in a completely effective manner.

In conclusion, it is recognized that this plan may not "cover" all members of this Association. A few members may still have difficulty operating. However, this plan is the result of a concerted effort by a group of dedicated people, and it is hoped

that each member may find a way to operate within its guidelines, when approved. If you do have any thoughts or suggestions for the possible improvement of this plan, please drop a note to the Association office.

Sincerely,

FRANK SULLIVAN, III
President, F.G.F.S.A.

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FLORIDA FARM BUREAU FEDERATION
Post Office Box 730
Gainesville, Florida 32602

October 4, 1984

The Honorable Paula Hawkins
United States Senator
Senate Office Building
Washington, DC 20515

Dear Senator Hawkins:

We appreciate this opportunity to enter our organization's position before the Senate Agriculture Nutrition and Forestry Committee Hearing that was held on October 1, 1984 in Orlando, Florida.

Florida Farm Bureau is a voluntary general farm organization which represents all segments of the agricultural industry in Florida. We represent 8,160 citrus producers and express their concerns as well as that of the entire agricultural industry.

Citrus Canker threatens Florida's billion plus dollar citrus industry as nothing in the last half century has threatened. Our concern reaches past that of the producers alone, but also encompasses the concern of those employed in an industry that is facing the hardship of natural disaster as well as the threat of exotic diseases. Florida Farm Bureau contacted Secretary of Agriculture, John Block, on September 20, 1984 and asked that an indemnification program be included as part of an eradication program.

We feel the Secretary would be justified in declaring an Extraordinary Emergency. Citrus Canker was not found in the United States prior to this outbreak. Our Government should put the resouces of USDA, APHIS on the line to eradicate this disease. By all designations Citrus Canker is an exotic disease.

The question of economics addresses itself when you realize that the eradication program is the total destruction of all

suspect trees as well as infected trees. Many plant pests and diseases can be eradicated without the destruction of the plants. However, with Citrus Canker we see the threat and possibility of perennial trees that should produce 30 to 50 years being totally destroyed.

We are concerned that the State of Florida while committing two and one half million dollars to this eradication program has actually had less than one million dollars available to put in. In fact, the grower's by their self imposed advertising tax through the Department of Citrus loaned over $500,000 to the State. This brought the funds available to just over one million dollars for Florida's share of the eradication program. We contend that the State of Florida has not adequately funded this eradication program and USDA should have responsibility of funding with help from the State for the eradication and indemnification program.

In this total program we feel that there is a place for Federal, State and grower participation. We have addressed the Federal involvement and feel that because the vitality of this industry is so important to the economy of Florida that funds should be appropriated to help wage the eradication war. We see grower involvement via an additional a self imposed grower tax to possibly pay indemnities to canker infested nurseries or groves prior to the Federal Declaration of an Extraordinary Emergency. Our understanding is that indemnification to producers would not be retroactive and we feel that the State and growers tax could be used to indemnify these affected growers. However, if the Federal Declaration is withheld until substantial findings are reported the growers can neither afford nor be expected to tax themselves at the level needed to pay indemnification.

In addition, we see a need for low interest loans and tax credits for affected producers. We feel that the indemnity should allow the grower to replant or reestablish the groves. This reestablishment would provide a method for the grower to repay those loans.

We advocate an indemnity program so that a safety net will be in place to protect growers. At this time, the Florida citrus industry needs the assurances that our Federal Government will not forget them or ignore them in their time of need.

Sincerely,

Carl B. Loop, Jr.
President

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